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THE

NEW GENESEE FARMER

AND GARDENER'S JOURNAL:

A MONTHLY PUBLICATION, DEVOTED TO THE IMPROVEMENT OF

AGRICULTURE AND HORTICULTURE,

AND TO

RURAL AND DOMESTIC ECONOMY.

EDITED BY

JOHN J. THOMAS AND M. B. BATEHAM;

ASSISTED BY DAVID THOMAS AND OTHERS.

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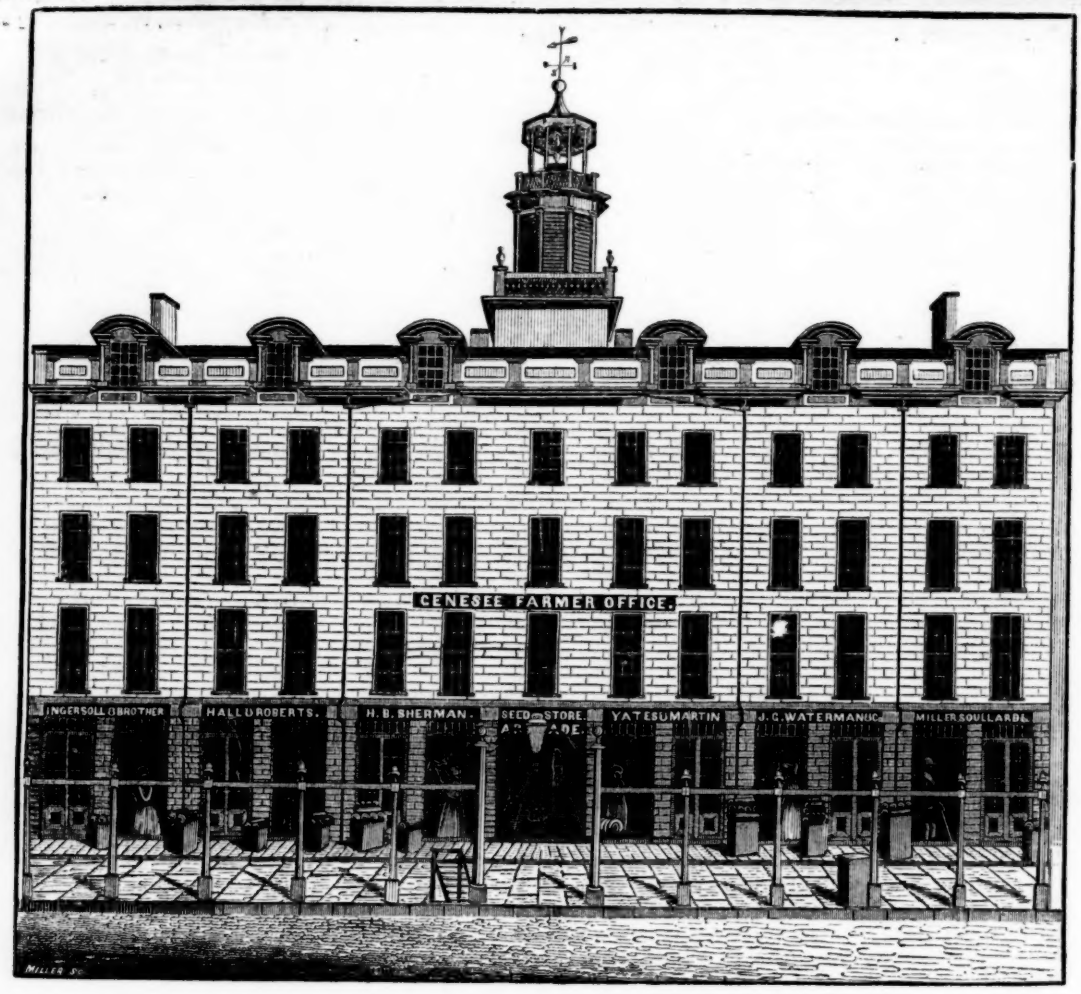

ARCADE BUILDING, ROCHESTER.

CONTAINING THE

NEW GENESEE FARMER OFFICE, SEED STORE, POST OFFICE, &c

The above engraving represents a front view of the Arcade Building, on Buffalo-st., in the most central part of the city of Rochester. In the centre of the building is a large open Hall leading to the SEED STORE, POST OFFICE, and ARCADE HOUSE; and stairways on each side lead to numerous Law and other offices and to the Printing Office of the "NEW GENESEE FARMER."

ACKNOWLEDGMENTS.

In completing the first volume of the New Genesee Farmer, the proprietors desire to offer their grateful acknowledgments to the numerous friends of Agriculture who have kindly assisted them in the enterprize. The extensive correspondence, and the talented editorial aid which we have received, has been the main cause of our flattering success, and of the satisfaction which the paper has given its readers.—Our sincere thanks are also due to the many Post Masters and Agents who have volunteered their aid in obtaining subscribers, and rendered us essential service. The experience of the past year, has convinced us that the friends of improvement in the GENESEE COUNTRY and the GREAT WEST, are determined to sustain the *Genesee Farmer* in its *native soil* and at its economical price: and while we congratulate them on its successful re-establishment, we earnestly solicit them to continue and increase their praiseworthy efforts in order that it may be successfully sustained. Let the friends of Agriculture lend us prompt assistance and extend the circulation of the paper, so that its influence may be felt throughout the whole community; and let them unite with us to awaken such a spirit of improvement as will cause a new tide of prosperity to flow over this fair country—and all strive to elevate the profession of Agriculture to that rank which Heaven intended it should occupy, when He, who created man, selected the cultivation of the soil as the employment best adapted to his physical, intellectual, and moral nature.

ROCHESTER, DEC. 1840. BATEHAM & CROSMAN, *Publishers.*

THE NEW GENESEE FARMER

AND GARDENER'S JOURNAL.

M. B. BATEHAM, E. F. MARSHALL, *Proprietors.* | VOL. 1. | ROCHESTER, JANUARY, 1840. | NO. 1. | JOHN J. THOMAS, M. B. BATEHAM, *Editors.*

PROSPECTUS OF

THE NEW GENESEE FARMER,

AND GARDENER'S JOURNAL:

PUBLISHED IN CONNECTION WITH THE ROCHESTER SEED STORE AND AGRICULTURAL REPOSITORY.

JOHN J. THOMAS & M. B. BATEHAM, *Editors,*
M. B. BATEHAM & E. F. MARSHALL, *Proprietors.*

THE Genesee Farmer, which for nine years past has been published in Rochester, to the great benefit of the whole Western Country, is now discontinued, and the labors of its publisher are transferred to the "CULTIVATOR" at Albany. Regretting the loss of their favorite Journal, many of the warmest friends of Agriculture in this section, have advised the establishing of a "NEW GENESEE FARMER" in this place, and have pledged their influence and talents to its support. The city of Rochester is the Capital of the justly celebrated "Genesee Country;" it is surrounded by an intelligent agricultural community, and a vast territory of unrivalled richness and fertility, and is in every respect, a most appropriate location for an Agricultural Periodical. The very extensive circulation of the late Monthly Genesee Farmer, affords good evidence that such a paper is demanded in this section, and that it will be sustained by the liberal and enlightened community for whose benefit it is intended. Influenced by these considerations, we have concluded to issue a "NEW GENESEE FARMER," which we shall aim to make not only the cheapest but the most useful, and the most extensively circulated agricultural paper in the country. With the advantages we possess, and the talented assistance engaged, we are confident this can be done, provided our friends, and the friends of improvement, come forward to our aid, with that praiseworthy and successful zeal which many have heretofore manifested.

The grand aim and object of the New Genesee Farmer will be to promote the great and important arts of Agriculture and Horticulture, and the interests of all those engaged in them. No reasonable pains or expense will be spared in making the paper useful and interesting. It will readily be seen, that in order to afford so large a paper at so small a price, it is necessary that the subscription list be very large. The small sum which it costs, certainly places it within the reach of every farmer, and it is confidently believed, that, with a little effort on the part of public spirited individuals, nearly every farmer in the land may be induced to subscribe for it, and a new impulse be thus given to the march of agricultural improvement. One of the publishers and co-editor, is well known as the proprietor of the Rochester Seed Store. His extensive correspondence and business connexions in this country and in Europe, together with his intimate knowledge of the subjects, well qualify him for the present undertaking.—The other publisher is an experienced Master Printer and publisher, and the appearance of our sheet will soon prove that he is well qualified to superintend the mechanical department of the business. The other gentleman, whose name we place at the head as editor, is so well known to the public as a writer on Agriculture and Horticulture, that nothing need be said respecting him. His able editorial essays and communications in the old Genesee Farmer, (toge her with those of his father, David Thomas, whose aid we also expect,) have contributed largely to the high reputation which that paper has sustained. In addition to the above, we have assurances of aid from many, if not most of those, who have already distinguished themselves as writers on these subjects, and from several other gentlemen of science and talent, who have not heretofore contributed to this cause.

TERMS, &c.—The "New Genesee Farmer" will be issued monthly, commencing 1st January, 1840, in double quarto form, 16 large pages, (same as the old monthly Genesee Farmer,) price 50 cents per year, payable always in advance.

Post Masters and Agents, sending money free of postage, will be allowed a commission as follows:

ELEVEN COPIES FOR - - - - - - - -	$ 5 00
TWENTY-FOUR COPIES FOR - - - - -	10 00
FIFTY COPIES FOR - - - - - - - -	20 00

As an additional inducement, donations of rare and valuable seeds, lately obtained in Europe and elsewhere, will be given from the Rochester Seed Store, as opportunities may occur, to such persons as exert themselves in obtaining subscriptions, or writing communications. The Post Master General has decided that Post Masters have a right to remit money, free of postage, from subscribers to publishers of papers. All who wish to benefit that class of community on whose success all others must depend, are respectfully solicited to use their efforts to obtain subscribers.

☞ All Letters and Communications must be addressed to BATEHAM & MARSHALL, Rochester, N. Y.

To Patrons and Correspondents.

We are truly grateful for the interest which many of our friends have manifested in our undertaking, and for the prompt assistance they have rendered. Owing to the hindrance of the mails by the snow, several valuable communications, intended for this number, were not received in time. They shall appear in our next, and, in the mean time, we hope to hear from a number of other persons, whose pens have often benefitted many of our readers.

Persons to whom this number is sent, who are not subscribers, and do not wish to become such, are requested to hand it to some other person, who, upon examination, may wish to subscribe. Those who receive more than one copy, will please circulate the others to the best advantage.

Agents, and others, sending in the names of subscribers, will please mention such as have got the first number, that we need not send it again.

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An Explanation.

We intended to have made this paper exactly of the same size as the late Monthly Genesee Farmer, but not being able to obtain a press sufficiently large, we are compelled to make our sheet a mere trifle smaller. To make up for this deficiency, we shall use a better quality of paper, and our type is entirely new and fine; so that we think the New Genesee Farmer will have a neater appearance than the old, and contain as much valuable reading, and give as good satisfaction.

Editors, and others, will observe that this is not "*The* Genesee Farmer" which was formerly published here by Luther Tucker. We do not wish to build upon the reputation of that paper; but expect to stand upon our own merits alone, and hope that Editors, with whom we exchange, will be careful to give credit, and to address their papers to the *New* Genesee Farmer.

Editors of Newspapers, in favor of Agricultural improvement, are requested to publish an abstract of our Prospectus and send us one paper, and we will send them ours for the year.

Engravings.

We shall illustrate our subjects with numerous engravings but have only time to prepare one for this number.

ADDRESS TO OUR PATRONS.

In commencing the publication of an agricultural journal, it is hardly necessary to urge the importance of the cultivation of the soil. It has not only been the means of constructing the great public works of the state, and of furnishing them with constant employment, but it is the basis of all other pursuits, which may justly be considered as its auxiliaries. It not only lies at the foundation of our state and national prosperity, but on it depends the very subsistence of all civilized nations, and is unknown only to the rudest conditions of savage life.

It is a matter of regret, that while commercial and political papers in our country may be numbered perhaps by thousands, those devoted to the leading pursuit of four-fifths of the inhabitants, are limited to scarcely a hundredth part of the number. The result of this neglect has been the necessity of importations from Europe of the necessaries of life, while we have had an immense and fertile territory before us; and the ruin in which many are involved, who have neglected the safe and profitable occupation of judicious farming, for the uncertain pursuit of commerce and speculation.

The great advancement of agriculture in Europe within sixty years, furnishes a very instructive example of the improvement of which it is susceptible. In Great Britain, the products of the soil have doubled, or increased to the enormous amount of three hundred and fifty millions of dollars annually. In Scotland, the present annual product exceeds that of the latter part of the last century by three times the amount.—In the best farming countries in Europe, the average crop of wheat, according to authentic statements, is from thirty to forty bushels an acre; barley, from forty to fifty bushels; oats, upwards of fifty; and potatoes from three hundred to three hundred and fifty bushels. It is well known that our average crops in this country has been far inferior. But a rapid improvement is taking place in this respect; and a greater attention given to improvements in agriculture, as is evident from the increased number of periodicals, devoted to the subject, which are doubtless destined to accelerate its progress.

That great improvements are yet to be made in the general practice of farming, is evident from the fact, that there are a few farmers who raise more than double the average amount of the general crop of the country. The example and practice of such farmers are well worth studying. The large crops of corn which some have raised, varying from eighty to a hundred bushels for many successive years, shows that much improvement is to be made in the general practice, and affords strong evidence of equal improvements yet to be made in the culture of other crops. The vast increase in value which has been given to some sterile and neglected farms in this state, which were worth but a few dollars an acre, but now pay, clear of all expenses, an interest on one or two hundred dollars an acre, is also well worthy of attention.

The increased value, also, which may be given to all our land, by the proper use of lime and ashes; by a judicious system of rotation; by the use of plaster, and green crops as manure; by effectual underdraining; by deepening soils; and by the cultivation of root crops as food for domestic animals, thus increasing the amount of manure manufactured on a given quantity of land; all need further investigation by farmers generally, and when fully ascertained, need a more general dissemination.

To the spread of information on these subjects, agricultural papers are properly devoted. We know the prejudice which exists with many, relative to *book-farming;* and this is not wholly unfounded. Those who undertake cultivation on a large scale, from written directions merely, must expect failure. Experience, and personal observation, should be *combined* with the knowledge derived from others. Experience must form the *basis;* information derived from reading, the superstructure. The indiscriminate adoption of hints from books would be extremely improper; the judgment must determine the fitness to the proposed object. Directions are frequently given, and experiments detailed, which are only applicable to particular climates or soils, and fail in others. An operation,

for instance, may succeed only on a sandy soil, and fail entirely on a clayey one. Hence, from such failures, an aversion is caused to all written suggestions. Where every requisite is not distinctly pointed out, the experience and judgment of the farmer must direct.—An important part of an operation may be omitted—an intelligent farmer decided against root crops because the necessary precautions were not taken in feeding them. Another instance in point is the following:—A farmer had read much of the benefit derived from ashes; he accordingly covered his land in large heaps, which were imperfectly spread, leaving spots of two or three inches in thickness, which were scarcely mixed with the soil. The crop of corn, in consequence, was greatly injured—a convincing proof of the folly of book-farming. But another covered evenly his ground to a thickness of four inches with ashes, which he *mixed thoroughly* with the soil by many successive ploughings, and the soil was very decidedly improved. The latter experiment was performed on clayey land. Such facts show the necessity of a thorough knowledge of the subject.

But some shut their eyes entirely to every thing written. A farmer who totally rejects book-farming, will gladly listen to a statement from his neighbor by which he may raise a bushel more on an acre with the same labor, and he is benefitted perhaps hundreds of dollars by it; but publish this statement in an agricultural paper so that its benefits may reach thousands, and it immediately becomes an idle tale entirely unworthy of notice!

A single hint obtained, is sometimes of great practical value. A neighbor had several acres of peas which needed immediate harvesting, and he offered a dollar an acre to get them mowed, without success. He however remembered to have read that peas might be readily gathered with a horse rake without mowing. The rake was accordingly put in operation, and the peas were harvested at a very trifling expense. "That single fact alone," he added, "saved me much more than the price of the paper." Similar instances very frequently occur.

But we hope to be useful even where the facts we exhibit may not be entirely *new*. Recalling to the mind what is already known, is often more important than new information. It is believed that by recurring to our hints for each month, which we hope to continue through the year, not only on the subject of farming, but on gardening also, our readers may be frequently reminded of important operations, the success of which depends in a great degree on their seasonable performance.

Testimony in favor of the New Genesee Farmer.

We have asserted that this paper was commenced by the advice of the friends of Agriculture in this section. We wish therefore to say a few words to substantiate that assertion.

As soon as we understood that Mr. Tucker had determined to discontinue the Genesee Farmer here, and remove to Albany, we tried to dissuade him from it; but he said he thought it was for his interest to go there, and therefore he would not consent to remain here. We were anxious to see a paper continued here, but having enough of other business we did not wish to engage in the enterprize ourselves, provided any other suitable persons would do it. Being advised and urged by our friends however, we at length determined to go on, provided the friends of the cause were in favor of the project, and would engage to assist us. We then wrote to a number of the most influential persons, whose opinions we thought the most deserving of consideration, asking their opinions and advice on the subject, and whether we might rely on their aid. Their answers were so decidedly and unanimously in favor of establishing a New Genesee Farmer, that we determined at once to proceed, with full confidence of success.

We should be pleased, had we permission, to publish several of the letters received on this subject, but will content ourselves with the following, from Mr. H. M. WARD, who is well known as one of the warmest friends of improvement in this vicinity. Those who with us had the pleasure of listening to his able and eloquent address delivered before the Monroe County Agricultural Society, several years since, will know how to appreciate any thing from his pen.

MR. H. M. WARD'S LETTER.

To the Editors of the New Genesee Farmer.

Gentlemen,—I am highly gratified at receiving your proposals for publishing a New Genesee Farmer; sharing as I do in the very general regret at the discontinuance of the former paper, I rejoice that its place is to be supplied by one published here, under auspices ensuring its permanency, and promising so much for its future usefulness; and that we are not to be deprived of the advantage of a paper devoted to the great interests of agriculture. It was well said in the first number of the Genesee Farmer, printed nine years since, that "no part of the world is more richly blessed with soil and climate for a great and flourishing agricultural interest, than the Western part of the State of New York—that part called 'Old Genesee.'" And every year that has passed since the above paragraph was written, has confirmed its truth, and I may add that every number of that valuable paper has helped forward that interest. And I rejoice that it was from no want of a just appreciation of the value of such a publication, on the part of Agriculturists in "Old Genesee," that its removal or discontinuance was thought necessary, by the former publisher.

When the Genesee Farmer was first published in 1831, it was considered by the friends of agriculture, as a very doubtful, if not rash experiment. The success which has attended it, has removed those doubts, and proved that a well conducted paper (and such I am confident the New Genesee Farmer will be) devoted to the interests of Agriculture, can, and will find support from those devoted to that pursuit. And why should it not be so? What other great interest in our country is without its appropriate organ of communication with the public—its Journal to record its progress and improvement—its medium of correspondence between its scattered members? One who has paid but little, or no attention to the progress of agriculture in "Old Genesee" for the last ten years, may not be aware how much that progress has been accelerated by the publication in the midst of us, of a paper devoted to its interest—but to one engaged in that pursuit, who has watched with interest its rapid, and more rapid improvement—to *you*, Mr. Senior Editor, whose pen contributed so much to the interest and usefulness of the old Genesee Farmer, and is pledged to the service of the "New"—that accelerated progress, and its connexion with the publication alluded to, are no secret; and by all such the appearance of your paper will be welcomed. As observed above, the first establishment of the Genesee Farmer, was an experiment of doubtful expediency, but its re-establishment cannot be considered as such, for those who have become interested in the former paper—who have been accustomed to contribute to its pages, to rejoice in its success and in the benefits flowing from its publication to the Agricultural interest of the country, will not be slack in affording to its new namesake their countenance and support.

For the success of your undertaking, you have, Gentlemen, my best wishes, and shall have what little aid it may be in my power from time to time to afford.

Rochester, Dec. 28th, 1839. H. M. W.

PROPOSED AGRICULTURAL MUSEUM, AT ROCHESTER.

The Agricultural Museums of Scotland, in connexion with their Seed establishments, have contributed greatly to those wonderful agricultural improvements, which have been effected in that country, during the past ten years. We lately had the pleasure of visiting the celebrated Museums of the Messrs. LAWSONS, at Edinburgh, and the Messrs. DRUMMONDS, at Stirling. The immense number and beauty of the articles there exhibited, are truly surprising, and cannot help but excite a spirit of improvement in the mind of every farmer, who views them.

There can be no doubt, but that such establishments would tend greatly to the advancement of agriculture, in this county, as well as in Scotland. And it is surprising to us, that no systematic establishment of the kind has been attempted, as yet, in this country. We have thought that an Agricultural Museum, in connection with the Rochester Seed Store, and The New Genesee Farmer, would add greatly to our means of usefulness, and excite new interest in the cause of improvement. And, if our friends will aid us, we will this year commence forming a collection, which, if all goes well, may hereafter be called the "Genesee Agricultural Museum," and be worthy of that honorable title. It will require much time and labor to bring it to any degree of perfection; and we must of necessity depend greatly on the assistance of others. If success attends our efforts, this year, we intend next season to enlarge our establishment, and fit up a separate room for the Museum. In the mean time, we hope the friends of the cause will aid us, by sending in to the Rochester Seed Store, any articles, which they can furnish, that may be thought interesting, particularly such as the following, viz: Pure specimens of all the different varieties of Wheat, Oats, Barley, and Rye,—clean samples of grain, say about one pint each; and a handful of each kind, say about one hundred heads, in the straw, selected of the average growth, cut close to the ground, and tied up in a neat bundle,—each specimen to be labelled with the name and general character of the variety.

Samples of all kinds of Indian Corn, in the ear and on the stalk, with particular remarks as to earliness, &c.

Samples of Buck wheat, Broom Corn, Millet, Mustard, &c. &c., in such forms as will best exhibit their character, growth, &c.

Specimens of all kinds of Grass and Clover. These should be cut close to the ground, or pulled up by the roots, about the time they are in flower, and dried like botanical specimens, by pressing between paper: (a few old newspapers will answer for this purpose, with a piece of board and heavy stone on the top, for a press.)

Specimens of noxious or troublesome Weeds, with some account of their habits, and best mode of extirpation: (these should be prepared in the same manner as grass and clover.)

Specimens of Roots and Vegetables, especially such kinds as are new, or uncommon, or of extraordinary growth, &c.

Specimens of all kinds of Fruit, with names: (a show-case for fruit will be provided early in summer.)

Specimens of domestic Silk, or any thing pertaining to the silk business. Also, Beet Sugar, and any other articles of home production and industry.

Specimens or Models of approved Implements, Machines, &c.

Specimens of extraordinary Soil, Marl, Plaster, Lime, &c.

Books, Pamphlets, and Papers, relating to Agriculture and Horticulture.

These are a few of the most important articles, necessary to the formation of an Agricultural Museum. We hope all of our friends, who are in favor of the project, will endeavor to furnish some of the above list. The names of the contributors will be recorded, and a report will be published occasionally in The New Genesee Farmer.

SEASONABLE HINTS.

Although winter has set in, it is not yet too late to provide shelter for domestic animals, where it has been hitherto omitted. Sheep are usually more exposed than cattle; but the fact that so many die in wintering, shows that protection for them is of the first importance. The improved quality of the wool and value of the animal, would more than compensate for all the labor required. There would also be a saving of food, as all domestic animals eat less when sheltered from the cold. A very necessary precaution is to separate the strong from the weak, the latter to receive additional care; and where the flock is large, it should be thus divided into several flocks

Very cheap temporary shelters for any kind of farm stock where straw is abundant, may be easily made as follows:—Build a pen of large poles or rails, to the desired height, so that instead of being a single wall of rails on each side, there may be *two* walls, inclosing a space about a foot wide; fill this space with straw, treading it down compactly. Then lay rails across the top, about one foot apart, and cover these thickly with straw for a roof, and the building is finished. It thus forms a warm and effectual shelter. We have seen a good stable for two horses made in this way by one hand in a few hours, while the cost of material was almost nothing. Old or wet straw is preferable to good, as cattle would not be induced to eat it, though, if well packed, they cannot in any case.

Hay is often wasted to a large amount by the want of racks for feeding. Where thrown upon the ground, half of it is frequently trodden under foot, in wet or muddy weather, and destroyed. Time would therefore be well employed, during the leisure of winter, in constructing suitable racks.

Hay is also wasted by feeding in too large quantities at a time, by which the animal's breath becomes condensed on it in large quantities, and it is rendered unpalatable, and is rejected.

Hay, straw, corn-stalks, and all other kinds of fodder, supply animals with more nutriment when cut or chopped fine. Stage-proprietors, who feed a great number of horses, have found a saving of one-third by chopping hay before it is fed to them. Mixing cut straw, hay, and meal, is an economical practice; the quantity of each ingredient may be varied according to circumstances. Horses kept at work, should have a greater proportion of hay and meal, than those standing idle.

As it is not practicable, however, for every farmer to cut his straw, a saving of hay may be made by feeding it uncut, and proper contrivances for this purpose become desirable. One easily made and attended with little trouble, is constructed by placing four strong rails so as to form a square or parallelogram, supported at a height of about four feet upon four strong corner posts, to which the rails are securely pinned. Stakes, resting with one end on the ground, and the other upon these rails, inclining outwards, complete the construction. The straw is stacked in this pen or large rack, from which the cattle eat it; its weight causing it to fall and rest upon the stakes as it is consumed.

When cattle do not freely eat straw, they may be induced to do so by sprinkling it with brine, as it is fed to them.

Watering cattle in winter is too frequently neglected. They are found to drink several times a day, when water is before them, which they would not do, if it were not requisite for their health and comfort. All animals may be more cheaply kept, and in better condition, if their comfort is strictly attended to and all their wants supplied.

SMOKING HAMS.—We are assured by an intelligent farmer, that hams are very effectually preserved from the attacks of the fly, while their quality is not at all injured, by throwing red pepper upon the fire in the smoke house, during the latter part of the operation.

It is also stated on good authority, that the dampness, so frequently caused by brick and stone smoke-houses, may be entirely avoided, by making a hole three or four inches in diameter, at the roof, which will cause an upward current, and by which the moisture will be prevented from condensing upon the meat.

FRUIT TREES.—The importance of preserving fruit trees from mice, may render the frequent repetition of a single remedy for preventing this evil useful to some of our readers. Except trees stand in thick grass, which should never be permitted, these little depredators attack the bark of trees only when they can do it under snow. Hence by treading the snow compactly round the trees, the mice are shut out from them, and a few repetitions at intervals, during winter, will effectually protect them. We knew a cultivator, who had just transplanted a large orchard of fine young peach trees, costing him nearly fifty cents apiece, but who lost nearly the whole of them by mice, while his neighbor, at an expense of less than a cent a tree, saved the whole of his. Trees planted in cultivated ground, are much less liable to injury, than those planted in grass ground. Wherever it is inconvenient to keep orchards of small trees in a constant state of cultivation, inverting the sod in autumn with a spade, to a distance of two or three feet round each tree, is a great protection, as it removes the grass, and elevates the surface so that the snow does not lie so deep around them; at the same time the growth of the tree is promoted.

WINTER BUTTER.—Many attempts have been made to facilitate the process of butter making in winter, as by heating the milk, warming the cream, &c. to shorten the tedious process of churning, which at this season of the year sometimes requires two or three hours. But we have invariably found these methods of shortening the operation to lessen the quantity or injure the quality of the butter. The only course appears to be to persevere patiently in the old way, as a long churning often affords the best and greatest quantity. As Euclid said to Ptolemy, when asked if he could not acquire mathematical knowledge by some shorter way than tedious study, "There is no royal road to geometry;" so it may justly be said, *there is no royal road to butter making*.

The quality and quantity may however be greatly improved by giving proper food. Pumpkins, carrots, and mangel wurtzel, fed regularly and in sufficient quantity to cows, will double the usual quantity of milk and butter, and add much to its appearance and flavor. This, with the improved condition of the animal, and the saving of hay, renders the cultivation of these kinds of food for cattle of very great importance.

We have discovered a method by which the operation of churning, in autumn and winter, may sometimes be much shortened, when it does not *gather* readily. The minute granules of butter often appear in the cream, but do not for a long time become conglomerated. A small lump of butter, thrown at this period into the churn, forms a nucleus, around which it collects immediately. This simple expedient, has in the course of a few months saved many tedious hours of labor.

Agriculture as a profession, strengthens the mind and contributes to the health and energy of the human constitution; and when attended to as a science, it is a boundless source of rational amusement, wealth and happiness.

Corruption of Morals the mass of Cultivators, is a phenomonon o whichno age or nation has furnished an example.—LATHROP.

Improvement of the Wheat Crop.

Our aim is the improvement of Agriculture; and the GENESEE country has a just claim to the first and greatest share of our attention. We shall endeavor to bestow our efforts upon the different crops of this section somewhat in proportion to their relative importance and susceptibility of improvement. On the score of importance all will agree, that the *Wheat Crop* ranks far the highest. The very name "*Genesee*" is almost universally associated with Wheat and Flour. Our fame and our flour, have together spread to almost all parts of the world; and wherever our name is mentioned our praise is heard. Indeed most people at a distance have got a much higher opinion of our agriculture than we really deserve, and hence, on coming among us, they are usually disappointed. They expect at least to find that we equal, if not excel, all other counties in the culture of Wheat. And some of our own farmers, honest sons of *old Genesee*, really imagine that they have reached perfection in the art of wheat-growing, and nothing further can be taught them on that subject, while at the same time their fine lands, which now produce only twenty or twenty-five bushels to the acre, might, with proper management, and little more labor, be made to produce full one third or one half more than they now do.

We left England about twelve years ago, and during the past summer re-visited that country and Scotland, so that from personal observation as well as from reading, we are somewhat prepared to speak of the improvements which have been effected in those countries. Twelve years ago the average crop of wheat there, was about the same as it is now in this country. Twenty bushels per acre was considered a good fair crop, and thirty, quite a heavy one; but now, in the best farming districts of England and Scotland, forty to fifty bushels is considered no more than a fair crop, and not unfrequently sixty to seventy bushels per acre is produced.

Now all must admit that what has been done in one country, can, by similar means, and under similar circumstances, be done in another. We are aware that some will say that these large crops are the results of an extraordinary system of culture, which owing to the high price of labor cannot be adopted in this country. It is true the lands in England and Scotland are mostly far better cultivated than in this country, and it would be good economy if our farmers would imitate them more closely in this respect; but still it is not so much owing to the greater amount of labor bestowed on their land, that they excel us, but to the better application of that labor. We do not expect our readers will thank us for the compliment, but truth demands the assertion, that the farmers of England and Scotland understand the business of growing wheat better than the farmers of "Genesee." They have studied the nature of the materials with which they have to do. They understand the capabilities and deficiencies of their soil, and the means of its improvement; the proper rotation of crops; the use of manure, lime, ashes, marl, &c.; also, the different kinds and qualities of wheat, and the way to obtain improved varieties. Much has been done of late by way of introducing new and improved varieties of wheat into England, which has contributed greatly to the increase of the wheat crop. Col. LE COUTEUR, of the Island of Jersey, has for several years given this subject his particular attention. His experiments and essays on wheat are highly interesting and valuable; and he has introduced or originated several superior new varieties. At the Manchester Agricultural Show in October, we saw exhibited about thirty samples of the best kinds of wheat, both in the straw and clean. At the Highland Agricultural Society's Museum at Edinburgh, and at the Agricultural Museum of the Messrs. Drummond at Stirling, we were shown an

immense number of distinct species and varieties of wheat, some of which were very beautiful. The catalogue of the former establishment enumerates more than eighty distinct kinds of this grain.

Owing to the difference of climate, many kinds of wheat which are found highly valuable in England are not suitable for this country; still, we are convinced that much may be done by way of introducing more valuable kinds than those in general use, and by improving those kinds already in cultivation in this country. We intend to import all the most approved kinds from Europe, with a view of testing their adaptedness to this climate ourselves, and comparing them with our common varieties. We earnestly request all of our friends who can conveniently do so, to make experiments and observations on the culture of wheat, and send us the results for publication. We are confident that there is much still to be learned on this subject, and that this all-important crop, the staff of life, and of our agriculture, may be greatly increased.

We intend often to recur to this subject, but shall conclude for the present with the following essay, which is not only valuable for the information which it contains but for the instruction it gives respecting the manner of conducting such experiments.

From the Journal of the English Agricultural Society.

On pure and improved Varieties of Wheat lately introduced into England.

An Essay, to which the Prize of Twenty Sovereigns was awarded in July, 1839.—By Colonel Le Couteur.

WHITE DOWNY.

1st. *The mode of procuring the sorts of wheat described.*—One of the best varieties of wheat in general cultivation, from which I have raised large crops, is the "White Downy," or hoary—the "Veloute" of the French.

This excellent variety is believed to be the same that is so well described by Boys, in his 'General View of the Agriculture of Kent,' as the "Hoary White," or "Velvet-eared;" said by him to have been much prized by the millers, but then entirely lost.

2nd. *Its culture,—viz., preparation and quantity of the seed; time and method of sowing; relation both as to preceding and following crops, and as to varieties of soil.*—The seed was carefully washed in several waters, till the water appeared clear on stirring the wheat with it: this is intended to draw off any smut, rust, or noxious invisible seed of the fungus tribe, which might be adhering to it, previous to steeping it in brine, made sufficiently strong to float a potatoe or an egg.—In this it was steeped a night, or about twelve hours; then well mixed with powdered lime. This process, it is thought, ensures the destruction of the eggs or larvæ of any invisible insect adhering to the seed.

Time and method of sowing.—The seed thus prepared was sown in drills, on the 29th of January, 1836, 7 inches apart, with an ordinary wheat drilling-machine, at the rate of 2 bushels, or a little more, to the acre. The wheat was carefully hand-hoed in the month of May, which caused it to tiller freely.

Relation both as to preceding and following crops.—The land in which the above wheat was sown had been well dressed with 9 loads of dung to the acre, the previous year, for potatoes, which were twice horse-hoed and once hand-hoed, to remove any weeds that the horse-hoe might have left. The land remained very clean; and after the potatoes were dug, and well cleared from the soil by two ploughings, 36 quarters of sea-weed (or kelp) ashes were spread on the field, or 9 quarters to the acre, at a cost of 2*l.* 5*s.* per acre, and, a month afterwards, ploughed in, about 5 inches in depth, with a view to nourish and warm the young shoots of the wheat, sown 3 inches deep. The ashes have a peculiar tendency to cause the wheat to grain, and render it plump, white, thin-skinned, and farinaceous. They have the additional quality of greatly augmenting the produce of the succeeding crop of clover. The soil on which the trial was made, being derived from argillaceous schistus, is light and rich, indicating, however, the presence of iron: to counteract the effect of which lime has been applied.

3rd. *Hardihood and power to withstand severe winters.*—This wheat will withstand the most severe weather. The season 1837 to 1838 was a very trying one, both as to wetness and severity of cold, the thermometer having fallen to 18° below freezing; but the crops of this wheat raised by my neighbours were perfectly insensible to it, and of great produce.

4th. *Early maturity and time of severance of crop.*—This wheat is not remarkable for its early maturity, though it cannot be called a tardy variety. On this occasion it was reaped about the 16th of August.

5th. *Tendency to degenerate, and liabilities to disease.*—From my own experience, and from that of the oldest persons I have consulted on the subject, this excellent wheat is not subject to degenerate; and, by bestowing on the portion of it intended for seed the attention recommended in my work, and annually, or even occasionally, varying the manure intended for it, it is possible that it may never degenerate.

The only objection to it is in the huskiness, or velvetty ear, which in damp weather is retentive of moisture; and in snatchy seasons the grain is more apt to sprout than the smooth-chaffed varieties. It is not much affected with dust-brand; and, when pickled and limed as described above, has never been found with smut-balls. It is little liable to shed, even when over-ripe, and will resist very heavy gales without being laid or broken. In the wet and stormy season, which prevailed in the Isle of Man before last harvest, this was the sort which resisted it best. Its height is from 4 to 5 feet, according to the soil.

6th. *Amount of produce in grain, chaff, and straw: and the relative quantities of flour and offal.*—This crop produced 48 imperial bushels to the acre, of a very fine sample. It weighed 62 lbs. the imperial bushel.

The straw was firm and white; the weight of it produced was 4557 lbs., and that of the chaff 315 lbs. to the acre.

Quantity of flour and offal.—The quantity of flour obtained from an acre was 2402 lbs. of the finest, 126 lbs. of pollard, and 416 lbs. of bran.

The bread is of a very fine quality, white, and rather of a moist nature; 18 lbs. of this flour making 25 lbs. of bread. With a view to further the design of the Agricultural Committee, the mode of making this bread is stated, which may enable other persons to make comparative experiments with similar quantities of flour from their own wheats. The flour was placed to rise, or to sponge, overnight, with ½ a pint of yeast and 2 quarts of water. At 9 o'clock the next morning, 4 ounces of fine salt were added, and it imbibed 3 quarts of water, milk-warm, which was well worked up, drawn up (as it were) into strings to expose it to the air as much as possible, in order to render it light; which is preferable to pressing it down with the closed fist, which more or less excludes the air, and tends to render the bread heavy. The dough is then left in tin pans to rise for 20 minutes or ½ an hour, and is usually baked in 2 hours, more or less, according to the size of the loaf. It is weighed when cold the next morning.

It is to be observed that some flour has only imbibed, on the following morning, after being placed to rise over night, 2 quarts and 1 pint of water; whereas other sorts have imbibed as much as 3 quarts and 1 pint, or a quart more.

Crop.	£	s.	d.	£	s.	d.
45 bushels, at 8*s.* per bushel	18	0	0			
3 ditto Tailings, at 5*s.*	0	15	0			
Straw, 40¾ cwt., at 1*s.* per cwt	2	0	9			
				20	15	9
Charges.						
Rent of land per acre	5	12	6			
9 quarters of ashes	2	5	0			
Tithe	0	8	6			
One ploughing for crop	0	8	0			
Half-tillage and dressing on potatoes	2	0	0			
Seed, 8*s.* per bushel	0	16	0			
Sowing	0	2	0			
Bush-harrowing and rolling	0	1	0			
One hoeing	0	5	0			
Reaping	0	8	0			
Cartage, stacking, and threshing,	0	15	0			
Interest on capital	0	10	0			
				13	11	0
Profit				£7	4	9

JERSEY DANTZIC.

1st. *The mode of procuring the sorts of wheat described.*—The seed is described as having been raised from a single ear, originating from seed procured from Dantzic selected from the finest "High Mixed." It is, however, suspected to be identical with some excellent sorts, called in Sussex, Kent, and some parts of Surrey, the "Chittums," in other parts "Peggleshum;" in Berkshire, "Trum;" in Essex, "Hardensdle;" in some counties, "Old Suffolk;" in Scotland, "Hunter's White;" and assuming several other names.

2nd. *Culture:* viz., *preparation and quantity of the seed; time and method of sowing, both as to preceding and following crops, and as to varieties of soil.*—The seed was prepared precisely in the same manner as the last described: it was sown on the same day on a contiguous piece of land of the same nature as the last described for the purpose of comparison, therefore prepared and manured in like manner.

3rd. *Hardihood and power to withstand severe winters.*—This wheat is not quite so hardy as the "Hoary;" it is nevertheless considered sufficiently so to succeed throughout the kingdom, excepting the north parts of Scotland. In rich soils it tillers amazingly, and produces a longer straw than the Hoary, nor is it so liable to sprout in a moist climate from being smooth chaffed: in very severe, moist, and stormy weather, it will be laid sooner than the Hoary.

4th. *Early maturity and time of severance of crops.*—It ripens a week earlier at least than the Hoary, and should be reaped while the grain can be marked by pressure from the thumb-nail, as it is rather liable to shed if over-ripe,—a disadvantage which the Hoary is peculiarly free from, as it is tenacious to the ear.

This was reaped about the 12th of August.

5th. *Tendency to degenerate and liabilities to disease.*—The experience of five years has not found this wheat to degenerate. A sample raised this year from that procured as above stated, was quite pure and unmixed, it may be said, as only 93 ears of foreign growth were picked from one hundred sheaves which were carefully examined in order to free the sort from any of stray kinds which might accidentally have got intermixed with it. This is a practice which I now constantly follow with the wheat set apart for seed for the ensuing year.

In a dry season this wheat will afford a beautiful, clean, white straw, fit for bonnet-making, or any purpose of thatching: it is firm and tenacious. In wet seasons it is rather subject to rust, which under such circumstances almost all wheat suffers from.

It is a fact worthy of notice that, in 1837, a field of this wheat, which had been sown with seed carefully washed and steeped in a solution of arsenic,* had not a single smutted ear; but on one headland, for which there was not sufficient seed, a small portion was fetched from the barn, and sown dry; though appearing a beautiful sample, it was infested with smut throughout; this was of course carefully picked out by hand before it ripened fully, and burned.

6th. *Amount of produce in grain, chaff, and straw, and the relative quantities of flour and offal.*—The crop produced 43½ imperial bushels of 63 lbs.; of chaff 439 lbs.; and of straw, as described, 4681 lbs. to the acre. The quantity of flour obtained from an acre was 2161 lbs., of bran 519 lbs., and of pollards 96 lbs.

The bread from this flour is of a dry light nature, very white and good, but objected to by some from it's being quite what is termed dry bread at the end of 48 hours. It is, however, of excellent yield, and according to the millers, exceedingly fine and smooth in the working. It is a valuable wheat: 18 lbs. of the flour, treated as the former variety, imbibed the following morning 3 quarts and 1 pint of warm water, and produced 25¾ lbs. of bread, weighed when quite cold.

Crop.	£	s.	d.
40¼ bushels at 8*s.* per bushel	16	4	0
3 ditto Tailings, at 5*s.*	0	15	0
Straw, 41¾ cwt., at 1*s.* per cwt.	2	1	9
	19	0	9
Charges as in the last	13	11	0
Profit	£5	9	9

WHITINGTON WHEAT.

1st. *The mode of procuring it.*—From Mr. Whitington himself, a very fine pure sample. The grain is large, full, and plump, rather of a whitish-red cast, and a little thick-skinned.

2nd. *Culture; viz., preparation and quantity of seed; time and method of sowing: relation both as to preceding and following crops, and as to varieties of soil.*—The seed was washed, pickled, drained, and limed, as is usual on this farm; then sown in drills 7 inches apart, about 3 bushels to the acre, on the 8th of January, 1838. When the seed is large, it is considered prudent to add half a bushel or more to the acre.

The field had borne potatoes the preceding year, and after two ploughings to free it from any potatoes which might have been left, it was dressed with 2 hogsheads of lime, 6 quarters of lime ashes, and 5 quarters of kelp ashes, at a cost of 2*l.* 5*s.* 6*d.* per acre. This

* The steeping of seed in a solution of arsenic is a dangerous practice, as, from the poisonous nature of the drug, there is a great hazard of accidents occurring. The steeping in brine, as above described by Colonel Le Couteur, is an effectual prevention of smut, and not accompanied with any danger.—Spencer.

mixture of manures was with a view to afford the wheat a different food from any it might have received, all of them having a tendency to cause the corn to grain, and rather check the overabundant growth of straw. Owing to the cold and frosty season which followed, the wheat was 49 days in coming up; it was hoed in the middle of April, and again in May, which left the land very clean, and the crop continued to look beautiful throughout the season.

It is worthy of remark, that a piece of the wheat was laid along the centre of the field, over which a pipe of liquid manure had been spread from a watering-cart the preceding season on potatoes, just as they were appearing above ground. The crop of potatoes not having absorbed the whole of the nutritive properties of the liquid, the wheat grew taller, coarser, darker, and so abundant in straw, that it afforded less grain, and that too of an inferior sample to the corresponding strips on either side of it. The straw was 7 feet long in many places, and fully 6 feet over the whole field, which consists of a soil derived from argillaceous schistus on a red clay bottom.

3rd. *Hardihood and power to withstand severe winters.*—I consider this to be a very hardy wheat, affording much herbage and straw, very fit for being eaten down by sheep in the spring, when sown early in the fall.

4th. *Early maturity and severance of crop.*—The "Whitington" is rather a late wheat, ripening a week or ten days later than the Jersey Dantzic, before described, though it was in bloom on the same day, on the 2nd of July. It was chopped on the 24th of August.

5th. *Tendency to degenerate, and liabilities to disease.*—From the purity of the seed, and the uniform appearance of the crop, it does not appear likely to degenerate, nor does it seem more liable to disease than other wheats, but its recent introduction prevents a conclusive opinion being offered on this head. The straw is brittle and many ears break off.

N. B. From the cultivation of another year (1839), I am inclined to think this to be one of the most valuable wheats for poor land: it has not degenerated in the smallest degree.

6th. *Amount of produce in grain, chaff, and straw, and the relative quantities of flour and offal.*—The produce in grain was 33 bushels the acre, a very good sample weighing about 61 lbs. the bushel; the chaff, 483 lbs.; and the straw 7786 lbs. per acre. Here was an amazing produce in straw, which made amends for the deficiency in grain; it is the most productive variety I have met with but one for the straw-yard. The straw is so long that it is unfit for the ordinary purposes of thatching; a short, tenacious, firm straw being generally preferred. The quantity of fine flour obtained from an acre was 1454 lbs., of bran 477 lbs., and 47 lbs. of pollard. The bread from this flour is rather dark, but very well flavoured, and keeps moist some days: 27 lbs. of this flour made into bread, in the mode formerly described, in the same relative proportions of yeast, salt, and water, afforded, when cold, 35½ lbs. of excellent bread.

Crop.	£.	s.	d.
31 bushels, at 8s. per bushel.....	12	8	0
2 ditto Tailings, at 5s.....	0	19	0
Straw, 69½ cwt., at 1s. the cwt,.....	3	9	6
	16	7	6
Charges to deduct as before, with an extra hoeing, and an additional half-bushel of wheat,	14	0	0
Profit.....	£2	7	6

BELLE-VUE TALAVERA.

1st. *The mode of procuring it.*—Described in my work on Wheat as having been raised from a single grain. This variety is invaluable, where it is adapted to the soil and climate.

2nd. *Culture; viz., preparation and quantity of the seed, time and method of sowing, relation both as to preceding and following crops, and as to varieties of soil.*—The seed was prepared precisely as before described. The cultivation of the two fields destined for this wheat and the Whitington had been similar throughout the course, with the view to ascertain the result on the crop of wheat. This was sown on the 3rd of February, 1838, at the rate of nearly 3 bushels to the acre in drills, on land dressed in the same manner as the contiguous field had been for the Whitington; the land in both may be said to be alike, the best description of light, rich, loamy soil. The seed being large, a greater quantity of it was allowed than usual. It is to be noticed that in another field the seed was put in as late as the 21st February, and that it ripened equally well and early.

3rd. *Hardihood and power to withstand severe winters.*—This wheat has succeeded in the North of Scotland, and is sufficiently hardy to withstand the winter in its grassy state, but it is otherwise more valuable as a spring crop: without doubt it may be sown as late as the first week in February, in all the milder parts of England, with a prospect of reaping quite as good an average crop from it as from any other wheat, but with a certainty of obtaining more flour than from most. A celebrated Scotch agriculturist wrote of it on the 12th of September last—"Talavera is nearly ripe, but such has been the untowardness of the season I do not expect any other wheat to make any return." This testimony is in favour of its early habits and hardihood also. It is what the French have long sought for—both a winter and a spring wheat.

4th. *Early maturity and severance of crop.*—The wheat appeared in 25 days, on the 1st of March; it was in bloom on the 30th of June, and was chopped on the 17th of August, a week sooner than the Whitington, which was sown nearly a month before it.

5th. *Tendency to degenerate and liabilities to disease.*—There is no tendency to degenerate observable in this wheat, as far as the experience of five or six years goes; nor from its early habits is it at all likely to become intermixed by fecundation from other varieties, though sown about the same period, as it will, in such cases, flower a fortnight or three weeks before them. It is not more liable to disease than ordinary white wheats, and affords a very fine, clear white straw: it is indeed one of the Italian bonnet-making varieties. There is, however, one disadvantage in it, which is, that the ear is so heavy that it is apt to break down, though not break off, when swept by a gale about the period of ripening; but it has a countervailing good quality, of ripening the grain equally well though bent down; as is the case with spring wheats, which ripen their seed well though quite laid, which with winter wheats is doubtful. Another peculiarity is the tenacity of the chaff to the ear, more remaining on it after passing through the threshing-machine than any other variety I am acquainted with.

6th. *Amount of produce in grain, chaff, and straw, and the relative quantities of flour and offal.*—The amount of produce in grain was 52 Imperial bushels to the acre; the grain is so large that it tells in the measure; the sample very beautiful, as a bushel of it, which will be produced at the Oxford Meeting, will show—uniform, clear, and thin-skinned. Hence the weight in grain at 61 lbs. the bushel, was 3172 lbs., the weight of chaff 282 lbs., and of straw 5480 lbs.—The quantity of flour obtained was 2485 lbs., the quantity of pollard 38 lbs., and of bran or offal 588 lbs.—The bread made from this flour is incomparably the best that I have met with; it is light, very white, and preserves its moisture almost as long as bread made from spring wheat. It is, moreover, so sweet and well-flavoured, as to appear to some palates more like cake than ordinary bread. Independently of the large proportion of flour it affords, it makes much of this fine bread: 18 lbs. of the flour, having absorbed more water than the last described, gave 25lbs. of bread.

Crop.	£.	s.	d.
48 bushels, at 8s. per bushel	19	4	0
4 ditto Tailings, at 5s.	1	0	0
Straw, 48¾ cwt., at 1s. the cwt.	2	8	9
	22	12	9
Charges to deduct, as per Whitington,	14	0	0
Profit	£8	12	9

The weights of 18lbs. or 27lbs. used for the flour to be baked are intended to be comparative experiments of weights of nines, it being generally understood, especially in baking bread and serving it out to troops, that 9lbs. of common flour will make 11lbs. of bread. All those, however, that I have experimented on afforded more: the two lowest having afforded, from 18lbs. of flour, 22lbs. 9oz., and 23lbs.; the former of my own growth, the latter made from wheat imported from Rostock and Danzic mixed.

In all the cases detailed, the succeeding crop was not allowed to interfere with the wheat crop; the clovers and artificial grasses having been sown subsequently to the harvest after one light ploughing.

In some cases I have sown the clovers and grasses after the second hoeing, but always, I am inclined to think, at some expense to the wheat crop; the coronal roots of which may be deprived of a share of their nutriment when the grass seeds begin to draw nourishment from the soil, and the thousands of mouths which they present may deprive the wheat of much pure air, and themselves exhale gases which may be injurious to the plants.

The following sorts I have also grown experimentally, but not having raised them in quantities sufficient to warrant a positive opinion, which probably might only tend to mislead, they are merely named. It is to be observed that a little calculation might have offered all the replies required by the conditions stated in the margins:—

The "Golden Drop" is one of the best red wheats, affording great produce in corn and straw, and a larger quantity of flour than some white wheats.

Hickling's "Prolific Red" is a productive variety, but rather coarse.

Brown's "Ten-rowed Chevalier," or prolific, is well named, where it suits the soil and climate; it has borne a fine crop with me, but it unfortunately has sported much into a pale red sort, owing no doubt to the seed which I obtained from Mr. Brown himself having been accidentally impregnated by a red sort; it is, when pure, a very fine variety.

"Gale's Hampshire" is an enormously productive sort of bearded wheat, which may be hereafter described.

"Essex Red." A very good variety.

"The Duck's Bill" wheat is very productive, but shedding greatly, and not very farinaceous,

J. Le Couteur.

Belle-Vue, Jersey.

In order to present the particular points of comparison between the four principal varieties forming the subject of this Essay, at one glance, the results are appended in a tabular form.

COMPARATIVE STATEMENT OF THE RESULTS.

	Soil.	Manure.	Quantity of seed per acre.	Time of Sowing.	Harvested.	Produce per Acre. Grain. bush.	Grain. lbs.	Straw. lbs.	Chaff. lbs.	Weight of bushel. lbs.	Produce per Acre in Finest Flour. lbs.	Flour, &c. (Pollard and Bran.) lbs.	Produce of Bread from 18lbs. of Flour. lbs.	Nett Profit. £.	s.	d.
Belle-Vue Talavera.	Ditto.	Ditto.	3 bushels	Feb. 3.	Aug. 17.	52	5480	7786	282	61	2485	636	25	8	12	9
White Down.	Argillaceous Schist, light and rich	Kelp Ashes, 9 qrs.	2 bushels.	Jan. 29.	Aug. 16.	48	4557	315	62	2402	542	25	7	4	9
Whitington.	Ditto on a red clay bottom.	Ditto.	Ditto.	Ditto.	Aug. 12.	43½	4681	430	63	2161	606	25¾	5	9	9
Jersey Dantzic.	Ditto.	2 hhds. of lime. 6 qs. lime ashes 5 qs. kelp ashes	3 bushels	Jan. 8.	Aug. 24.	33	7786	483	61	1454	524	23¾	2	7	6

N. B. In the estimate of profit in the last column the calculation is not made with relation to the respective values of the wheats, as to their productiveness in flour, which it might be, but according to the ordinary marketable value of good wheat; the straw is valued as intended for manure.

From the New England Farmer.

THE SPIRIT OF THE AGE.

AGRICTLTURAL PAPERS, &c.

MR. EDITOR,—The strongest characteristic of the age we live in, is the spirit of progress and improvement which pervades the community: improvement in every thing susceptible of it:—improvement in art—improvement in science—and, may I not add, improvement in human nature? There exists, in fact, a *progressive excitement*—and so long as its effects shall be to substitute right for wrong, to develop mind and stimulate genius to invention, it is to be hoped it may not subside.

Among the arts and sciences which have felt, in different legrees, the beneficial influence of this improving spirit, is to be named agriculture. (I allude particularly to our own.) The obstacles which have heretofore prevented this great national interest from being, as an art, better understood, and, as a science, correctly practised, are fast being removed: aged error is receding before the quickened march of mind, the light of science, and the convincing deductions of reason and philosophy;—deep-rooted prejudices, venerated rather for their antiquity than their worth, are giving way to the enriching truths of modern discovery;—twin-sattered ignorance and superstitution are fast losing their baleful influence over human affairs, and men are beginning to see and appreciate the might of mind when enlightened by science.

It is well for the prosperity of our country and its every interest, that the improving spirit abroad is effecting a revolution in our husbandry,—a revolution of mind and a revolution of matter;—and, as these mighty agents of good or evil 'never go back,' we can look with confidence for the consummation of the desired reform which has commenced and is rapidly progressing in those parts of our country where light had reached, reason convinced, and practice demonstrated. Through all the clouds which yet hover around, the attractive observer cannot fail to discern 'the dawning of a brighter day for American Agriculture,—a day which shall give the modern system of farming the ascendancy over the old 'exhausting system,' whose only honor is its age. We do not believe that error can long flourish when right is abroad to combat it:

> "Truth crushed to earth will rise again;
> The eternal years of God are hers;
> While Error writhing, lies in pain,
> Or dies amid her worshippers."

The old system of cultivating the earth has little of right in any of its processes;—it was conceived in error and brought forth in ignorance:—the modern system is the offspring of science, and bears on its front the impress of right: it is supported by reason, by philosophy, and by the experience of the intelligent: and as soon as it is generally understood it will be generally adopted: its independence calls for it; and it may be necessary for the perpetuity of our existence as a free nation: for, judging from the sad history of past republics, liberty finds support in agricultural strength, and danger in commercial greatness.*

What are the causes which have combined to prevent agriculture from advancing with the other arts and sciences? They are to be found in the prejudices of the farmer for ancient customs: in their (seeming) unbelief in the progress of mind, and consequent aversion to improvements; in their hostility to what they term *'book farming,'* which may be defined the practising of scientific truths and the recommendations of the intelligent, promulgated through the press. These are the principal causes which have operated to retard the progress of improvement in the rural art. Thanks to agricultural newspapers, they do not now exist to the extent they did a few years since, but their prevalence is still extensive—by far too much for our national independence,† for the pecuniary interest of the husbandman, and for every interest of the community. How shall it be lessened? *By the dissemination of knowledge among the yeomanry.* Knowledge, is power'—it confers the power which the farmer needs,—the power of making every inch of land productive, and to produce to the extent of its capability,—the power of overcoming, by art, the obstructions of nature. The knowledge which will give this power, is most easily found and conveyed in agricultural papers. These are within the reach of every cultivator, and should be patronized by all—as well by the indigent as the opulent: for their tendency is, not to make the rich richer at the expense of the poor, but to make the poor happier in an increase of their crops, and show them how to become independent of the rich. There is not a whit of economy in refusing to become a subscriber to one of these publications. He who has but one acre might be learned through this means how to cultivate that so as to treble his usual products, alike with him of his hundred acres: at any rate, either could not fail to be benefitted by a year's reading of a paper, to more than treble the amount of the subscription price. This is proved in the case of those who are subscribers. It is a fact worth noting, that you seldom, (I might, probably, say never,) meet with a subscriber to an agricultural paper who does not set a high value upon it, or who is in the least dissatisfied with paying a dollar or two a year for its perusal. Such an investment of money is, in their opinion, the best they could possibly make, as none other, to them, yields so great an interest. I was told by a farmer, (a subscriber to Judge Buel's Cultivator,) that a plan which he found in that paper for steaming apples, potatoes, &c., for his swine, had been of vastly more consequence to him than a dozen year's subscription money. Such instances are common,—in fact, it is absolutely impossible, in our view, that some useful information or valuable hint should not be acquired in the course of a year's reading, which will not repay, many fold, the price paid for the paper. Farmers need to be made aware of these facts, and to be shown, through the convincing means of experiment, how falsely founded is their notion of economy, in refusing to take a paper devoted exclusively to their interests.

These vehicles of knowledge are productive of good in another respect;—they take with the young—with those whose minds are not yet warped by prejudice, nor fully imbued with false notions,—with whom any thing novel and plausible in theory, begets a passion for experiment. I will state an instance, the better to illustrate my meaning.—A farmer, of my acquaintance, in New Hampshire, was bitterly prejudiced against all other modes of farming than that practised by his ancestors from the earliest generation, and transmitted unimpaired (and *unimproved*) to him. He was loud in his abuse and ridicule of 'book farming,' about which he talked as learnedly as he could of other matters whose discussion renders something more than a *knowledge of the alphabet* and *two ideas* necessary—declaring, in his wisdom, that it was 'intended for the wealthy and college *larnt*,' and that 'he was'nt fool enough yet to plant his land with *mulberry trees!* and buy corn to live on,' &c. This man had a son—a lad of some nineteen years—who was much inclined to reading, and who had often endeavored to induce his father to subscribe for an agricultural paper, but without effect. The father had the misfortune to be stricken with a dangerous sickness, and the management of the farm devolved upon the son, who had obtained the father's consent to conduct it as he pleased, with the proviso that he should plant no *mulberry trees.* As a preliminary step to the reformation contemplated, the son subscribed for an agricultural paper, and followed 'book farming' to the extent of his means, the swamp was resorted to for materials or compost, (an idea which never entered the head of the father,) lime was purchased for manure; the swine were increased to increase the means of fertilizing the soil; root culture was adopted—alternate crops—manuring by turning in green crops—(for which last act, in particular, he incurred the censure of his neighbors, who were unanimous in pronouncing him a 'fool,' 'notion,' 'crack-brained boy,' &c.)—and such other improvements made as he found suggested in his paper.

The beneficial change which had been wrought in the order of things on the farm, was so palpable and manifest as to excite the wonder of the father at his son's unexpected success, and he could not help acknowledging that his prejudices against 'book farming' and agricultural papers were ill-founded and supremely foolish. This farm, under the father's exhausting culture comparatively a desert, and yielding but a poor return for toil, has, by the scientific and skilful management of the son, been made to teem with plenty and will reward for the sweat of the cultivator's brow. I have heard this farmer declare that his yearly profits did not exceed $100, and grumble at his 'hard lot.' Under his son's administration of affairs treble this amount is annually 'cleared.'

This case is no fiction—and if it were, it would be a faithful representation of many unwritten instances of like results.

If agricultural papers, then, are productive of so much good—if their tendency is to 'make two spears of grass grow where but one grew before,' no means should be spared to extend their circulation, let the farmer who is a subscriber induce his neighbor who is not, to become one also;—let agricultural societies lend all possible aid in the cause. I can conceive of another method for advancing my object;—In every village there are generally two persons upon whom the citizens bestow extraordinary respect, or a sort of voluntary reverence, on account of their (supposed) superior intelligence—I mean the minister and the physician. Suppose these important personages should exercise the influence they are capable of, to the end of improving the agriculture of their towns, by inducing their fellow citizens who follow the plough, to read—to improve the mind in order to improve the soil,—could not the great object of enlightening the yeomanry—the hard-handed, honest-hearted yeomanry—be furthered by such a praise-worthy movement?

It is, chiefly, to the influence of such papers as the New England Farmer, the Albany Cultivator, the Genesee Farmer, and others of a like character, that our improvements in rural economy are to be ascribed;—that influence needs encouragement,—encouragement from States as well as individuals—it needs to be more widely diffused; for, in proportion as it is extended, in nearly that same proportion will the profession of agriculture be exalted in the public estimation, its operations facilitated, and its products increased.

J. H. D.

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* I mean to be understood that the freedom of a country, agriculturally great, is more secure than that of a country, great only in a commercial sense.

† However independent we may think ourselves, we cannot, in truth, be styled independent, till we cease to rely upon foreign nations for some of the essentials of life.

From the New England Farmer.

Labor, and Labor-Saving Machines.

We conceive that many American writers, in urging the adoption of foreign agricultural improvements, overlook one very important ingredient in European farming, essential to a high standard of husbandry, and that is the extreme low rate of wages abroad compared with what it is in this country. In the old and fully-peopled countries of Europe, is a large surplus population, incapable of being landholders, or entering into commerce and the trades, from the arbitrary rules that govern them, and who must content themselves with the smallest daily pittance or starve. Such a population is more at the disposal of the farming than any other interest in society, and is one of the main pillars of the high and improving state of English, Scotch, and French agriculture. With us the farmer has no such resource. Ours is a new country, and, from the freedom and elasticity of action engendered by our institutions, and the inducements held out to exertion, all are striving to outstrip each other in the acquisition of wealth and reputation. Land is cheap and abundant, and there is ample room for action; and every man who has a common degree of intelligence and industry, may become a landholder. Men follow their natural inclinations, and prefer being independent citizens and their own masters, to being in the employment of other individuals. Under this state of things, those pursuits that are carried on with much manual labor, are attended with the most expense to those engaged in them, and meet with no small obstacle to their success in the fact, that they create a demand, for which the supply is by no means adequate. American farming is one of these pursuits; its various operations being almost entirely performed by bodily labor, unassisted in a great degree, by nature or art. To every pursuit and profession among us have the sciences and arts lent more assistance than to our husbandry; and we believe that this is one very great reason why all other pursuits are so much in advance of it. The innumerable results of human invention, the application of the laws that govern the operations of nature, to the daily avocations of man, have carried us forward with an incredible rapidity as a commercial and manufacturing people. They have been capital and labor to us, amply supplying the deficiencies of both.

Amid this hurrying forward to perfection of almost every calling amongst us, we would not say that our agriculture remains where it stood fifty years ago, for we believe it has advanced within that period—but we find it creeping on at a (comparatively) snail's pace, unassisted, in a great measure, by art or science, and harrassed by the same impediments, that hampered it in the days of our fathers. We speak, of course, of the general state of American farming, as manifested throughout the country, and would not include those exceptions in districts and individuals, that, from their rarity, do us the more honor.

With nothing have our farmers had to contend more than this scarcity of labor we have referred to. The high rate of wages has eaten up the profits of the farm, and debarred them from making many improvements in their husbandry; and this the more so, inasmuch as the raising of crops for the market, requiring much and constant manual labor, has been the prevailing agricultural interest. This obstacle to their more rapid improvement and success has been so prominent and palpable, that we have often wondered at the neglect and indifference manifested by many of our farmers towards those implements and machines that have been offered

them from time to time, for abridging and facilitating the labors of the farm.

Husbandmen should remember that just in proportion as they save in the *time of performing* their daily operations, just in the same proportion do they economise in the item of labor, and in the expense incurred by it. As for instance, if my two hired men, at the expense of a dolllar a day a piece, can thresh with the flail, one hundred bushels of grain in ten days, the threshing of my grain will have cost me *twenty* dollars, taking no account of the inevitable loss by waste. Now if by the use of a threshing machine, at an expense say, of two dollars per day, with the assistance of a man and a boy at one dollar and a half per day, my one hundred bushels of grain can be threshed in two days, it will be done at an expense of *seven* dollars instead of twenty, with a gain also, of *eight* days time. We presume the items in this estimate are incorrect, but we believe the difference in time and expense will not be found to be much exaggerated, and will serve to illustrate our proposition, that *whatever is saved in the time of performing the daily operations of the farm, is so much gained in the wages of labor.*

We advance another proposition, that, not only do we, by the use of labor-saving machines, economise in time and the expense attending labor, but also that *just in proportion as we economise in those two items, just in the same proportion does the same amount of capital go farther in the cultivation and improvement of the farm.* If I have twenty dollars to pay for threshing one hundred bushels of grain by the flail in ten days, and can, by the use of a threshing machine, have the same amount threshed in two days for seven dollars, I have actually gained eight days and thirteen dollars, which I may spend in other duties upon the farm, or, which is the same thing, I can with the same amount of capital, perform nearly three times as much labor in three quarters of the time.

We would suggest then, on the strength of these two propositions, that, by the aid of labor-saving implements, our farmers may perform the usual labors of the farm at a much reduced expense, and, with the same outlay of capital, may also accomplish a very much increased amount of labor, and consequently an increased production. We know that it will be objected, that this appears very well upon paper, and may accord very well with a closet calculation, but that we have omitted to take notice of the item of the *first* expense of all machines, more particularly those of modern invention, and of the constant wear-and-tear attending their operation. We have made a liberal allowance for all this, in the two general propositions we have advanced —the more liberal, inasmuch as wherever labor-saving machinery upon farms has come under our notice, the expense of purchase and repairs has been more than amply made good by the expense saved in the wages of hired men, by the superior and expeditious manner in which the various operations of the farm have been performed, and by the greater amount accomplished.

Our limits will allow us to record but one instance of the successful employment of labor-saving machinery upon farms, and there is no feature in the farming, in the instance referred to, that we more admire than the manner in which art and science are made to supply the place of several pair of hands. We will only say that the gentleman refered to is one of the most intelligent and distinguished farmers in the State of New-York, whose *practice* as well as his experience and opinions, may be most confidently relied upon. Our friend, in the first place, has upon his farm a portable *horse power*, a machine in too common use to need a description, and which, by the medium of the wheel and band, is capable of giving motion to machines for various purposes. In connection with this power, he employs a grain-thresher, (of whose invention we do not recollect,) by which his grain is threshed in a third or quarter the usual time, with scarcely any of the waste attendant upon the use of the flail, and which, when he is not using it himself, is passing from farmer to farmer to expedite their operations. By the aid of the same horse power applied to a simple circular saw by means of a band and wheel, he is enabled to effect the cutting of his winter's fuel, in a very few days (we had almost said *hours*) without any of that waste of chips, that, in a series of years, makes no small item in a farmer's economy. The same band and wheel transfered to his grindstone, and a pair of hands are saved at the crank, while by the increased power and velocity, two can be employed at the stone with greater ease and expedition than one could be by the aid of the common handle. The power obtained by the wheel and band, again transferred to his hay and straw cutter, and a couple of hours work prepares cut feed for a stock of twenty head for several days, and thus brings into successful operation a machine, that has not been in general use for a large stock of cattle from the great length of time required to cut the food by manual labor. By the use of the horse-rake, he contrives to save the labor of several hours and men in raking his level lands; and by a simple machine, we believe of his own construction, he plasters an extent of land in a few moments, that would require an hour or two to pass over, if the plaster should be sown by hand. Indeed he forces machinery to perform for him every operation on the farm, whereby he can save *time* and *wages* paid to hired men,—a system which he finds more expensive than the old fashioned method of entire hand labor at the onset, but infinitely, *infinitely* more economical in the end.

And now when we ask ourselves how many of our farmers will be convinced of the truth of what we have said sufficiently to practice upon it, we find but a discouraging answer in our observation upon the prevalent systems of husbandry about us. When we urge the adoption of improved agricultural implements and labor-saving machines, we are met with excuses of a want of capital to meet the first expense,—of an inability to use successfully many implements and machines, from their complicated character—and from a want of confidence in all improvements in agricultural implements, from the repeated instances of quackery under which they have suffered, in the numerous machines that have been palmed upon them as useful inventions, and which turned out to be mere *clap-trap*. In reply to all this we can only say, begin on a small scale, but do not be *afraid* to venture. Whether it be a horse-rake, or an improved plough, or what not, incur the *first expense* and its *use* will repay you fourfold. Be not alarmed because the dollar you invest today will not return to you to-morrow, but be contented to wait, if there is any reasonable hope that it may come back to you at a more distant day trebled or quadrupeled. And remember when you purchase, that the object of all improved farming tools or machinery, should be to perform, in a given time, a *greater amount* of work in a more *thorough and economical* manner, than the implements for which they are substituted. With this object in view, purchase the most simply constructed machines, and neither condemn them or be discouraged because after a *few* trials they do not fulfil your expectations. Let them be *well* tested, and every attempt made to discover the cause of failure before they are given up. Be careful that this cause be not in the employer rather than the machine. And the farmer's well known intelligence and caution must be his protection against the employment of machinery or modes of farming of any sort, that are of doubtful utility. By placing a proper degree of confidence in the experience and opinions of those who have fairly tested various farming instruments, and by exercising his own judgment critically, there is no reason why the farmer more than any other man, should be the dupe of useless inventions.

We have already extended our remarks to a greater length than we had intended. But the importance of the subject must be our only apology, and we shall be content with having drawn any to an attentive consideration of what we have said, and the various conclusions to which our suggestions may lead. H. V.

From the Silk Journal.

CHOICE OF OCCUPATION.

At the present period of general derangement in almost every department of business, it is natural for all inquiring minds to cast their eyes around in search of some pursuit calculated to yield them a support, or to advance their pecuniary resources. And where, let me ask, does the mind meet a certain response, except from the productions of the soil, and where else can one look for stability, as to the safety of his investment, and to an ample return for his labors.—What other pursuit can offer to him a sure guaranty of a comfortable support for his family, and permanent provision for his children. In commercial pursuits all is chance and uncertainty, and he who can boast of being on the ascendant to day, can only claim to occupy the reverse position to-morrow. The history of whole streets in our mercantile cities, is but a record of the rise, and the downfall of their occupants. It is a melancholy reflection, that such are the uncertainties attendant on commerce, and on mercantile affairs generally, that every six or seven years witnesses a complete revolution in the mercantile class of the community. And yet such has been the folly and absence of proper discrimination among parents generally, that apparently, it has been their most anxious desire to devote their sons to mercantile pursuits, and to risk their prosperity on changes as fluctuating and more uncertain, than the turn of the die. It is to this gross misdirection of the mind that many branches of agriculture have to this day been totally neglected, although offering the most bountiful returns to those who would engage in them. Providence planted the vine only in Persia, Syria, and in North America. To France and Italy, he tendered no such bounty. And yet we see France, whose climate was so uncongenial to the vine at its first introduction, that it could barely survive on its most southern shores, now become enriched beyond every other nation by the immense accumulation of wealth for ages her vintage has poured into her bosom. We see that country becoming affluent and powerful, not from the natural productions of her own soil, but from those which she has borrowed from more favored climes. Look at her olive groves, and the whole race of oleaginous plants from which she derives the immense quantity of her choicest oils, sufficient almost for the consumption of the whole earth. Look at her groves of almonds, figs, prunes, and almost every other fruit calculated to give support to her citizens, and amplitude to her commerce. And lastly, look at her immense and increasing plantations for the silk culture, rivalling in profit all her other pursuits. Not one of these invaluable productions is the gift of nature, but are all exotics transplanted to her soil.—For ourselves, we may claim both the vine and the mulberry, as pre-eminently our own, and planted on our soil by the God of nature. And thus favored, shall Americans succumb and yield precedence to nations possessing fewer natural advantages? Shall we shrink from the development of those resources which God himself has marked out as peculiarly calculated to enrich our country, and extend our sphere of comfort and happiness? We trust not. We trust that we shall not have, for the future, any recreants among us, who doubt the triumph of American skill, enterprize, and industry, where any other nation dare claim success. It is such men who retard the national advancement, and are a clog to its prosperity. They are worse than drones, for they impede the labors of the industrious. Men, professing such opinions, ought to receive the withering scorn and derision of a nation which claims to have no superiors in knowledge and the arts, and which acknowledges no consummation to their labors, but that which ensures for them the most triumphant success.

How to make Agricultural pursuits pleasant as well as profitable.

For ages the employment of the husbandman has been looked upon as dull, uninteresting work. It has been thought to be a dull, plodding occupation of the hands and not of the head. And there has been too much foundation for such an impression. The agriculturists of years not long by-gone, did little with the head to dignify or enliven the work of the hands.—A change for the better seems now near at hand. Perhaps in your day, farmers may be generally more intellectual, more intelligent, and more able to bring the truths of science to benefit them in their manual labors, and to give them interest and delight in their occupations. But whatever others do, I hope you at least will take such measures as will convince yourself, if not others, that agricultural employments are as interesting, intellectual and pleasing pursuits as any with which they may be put in comparison. I know of no method by which you can more effectually render them so, than by employing your mind upon your work. Most assuredly the more your mind is employed upon your work—in tracing effects to their causes, in accounting for failure and disappointment, in understanding the operations of nature, in devising improvements, &c. —the more interest you will take in your employments, and the pleasure and gratification you derive from them. Moreover this is not only the way to make your pursuits pleasant, but it is the way to make them profitable also. Your mental operations must be wrongsided and injudicious indeed if they do not lead you to the discovery of means whereby you can educe more produce out of any certain amount of labor and expenditure. The most intelligent farmers, you may easily convince yourself, if industry is not wanting, generally succeed in making their farms the most profitable. But what I wish especially to inculcate upon you, at this time, is, that you will feel more interest, more pleasure, more conscious dignity in your pursuits, the more you occupy your mind on the subject.

Agricultural schools would aid in thus elevating agriculture.—*Albany Cultivator.*

Origin of the Word "Farm."—In the Saxons time, the estate which the Lords of Manors granted to the freemen were at first but for years, with a render of a rent, which in those days were of corn or victual, and thence the leases so made were called farmes or farmes, which word signifieth victuals; but times ensuing turned the victuals into money, and terms of years to terms of life and inheritance, retaining the rents and those called quitrents, or rents of those persons that were acquitted or free.

NEW GENESEE FARMER.

JANUARY, 1840.

CORRESPONDENTS WANTED.

We earnestly solicit our readers to become correspondents of this paper, for after all we can do, we must depend greatly on them for the interest and value it may possess. A vast amount of valuable information doubtless exists among our intelligent farming population, which has been discovered through their experience, and is known to the discoverers only. This information, if communicated and spread, would be of great value. Let each one contribute his mite, and the work will be greatly advanced. But many are unaccustomed to writing, and have never written for a paper. No matter; give us the *facts*, and we will, if necessary, put them in a proper dress. It is not elegance of language that is going to instruct in farming, but the dissemination of experimental knowledge, however plain the words which convey it. The simpler the language the better. Neither is it the account of extraordinary crops that we so much want, as a statement of a uniformly successful practice, though not greatly different from the ordinary method. We do not wish so much the account of monsters, as of full, healthy, natural productions.

There are some who keep regular accounts of their farming, the size of their crops, yearly profits, &c. The reports of such would be of great value, and we urgently request those who may be able to furnish them, whether of whole farms or of single crops, to send them to us.

THE CLAIMS OF HORTICULTURE.

EXHIBITION FOR 1840.

Our *principal* object will be to advance the great interests of *Agriculture*; but, at the same time, we shall by no means forget the important claims of *Horticulture*. It contributes so largely to the enjoyments and comforts, the wants and luxuries of life; its practice affords such healthy and agreeable exercise, and such delightful objects for contemplation, that, whether we view it as a means of supplying our wants, of gratifying the sense, or improving the mind, it must be regarded as a subject worthy of our especial attention.—We shall aim to encourage, among our readers, a more general attention to this useful and important art, by diffusing such information as will lead to its more successful practice.

About ten years ago, a society was formed in this city for the promotion of Horticulture in this section; and, for a number of years, its efforts were very successful. The meetings and exhibitions were well attended, and highly interesting. A degree of taste and emulation was excited, the good effects of which were soon manifested in the gardens of this vicinity, and the influence is still seen in the abundant supply of fine fruit, flowers and vegetables, which our market and gardens afford. Owing to several unpropitious seasons, however, the exhibitions were omitted, and the succeeding pecuniary embarassments have so absorbed the public mind, that for several years past, no combined efforts have been made for the promotion of Horticulture.

Some of the friends of the cause have several times suggested the propriety of re-organizing a society; others thought it was not best to make the attempt, but wait, in hopes that better times are at hand, or that the minds of the community will become better reconciled to existing circumstances.

It is agreed, however, that whether a society be formed or not, we can, and ought to have, a Horticultural Fair or Exhibition, the coming fall; and, in order to give it additional interest, and promote both objects, it is decided to have the Exhibition take place at the same time as the great fair of The Rochester Mechanics' Association.

A fund will be raised for the purpose of awarding premiums for the finest Vegetables, Fruits, and Flowers. Subscriptions for this purpose will be received at the Rochester Seed-Store, and New Genesee Farmer office. Particulars will be published hereafter.

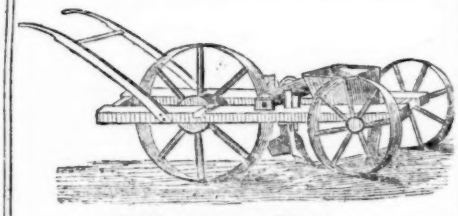
To Agents, and the Friends of Agriculture.

With this number we send subscription lists to such persons as, we suppose, feel sufficient interest in the cause, to give it their attention; and we earnestly solicit them to aid us, and benefit their neighbors, by extending our circulation among them. This should be done without delay, in order that readers may enjoy the benefits of these long winter evenings. Besides, it is very desirable that we should receive subscriber's names as soon as possible, in order that we may form some idea as to what number it will be necessary to print. It may be remembered that those who subscribed late last season, could not obtain back numbers, so as to make their volumes complete.

REMEDY FOR HARD TIMES.

It cannot be denied that the times are hard—they are *very* hard. Not only do the merchants and mechanics complain of failures and embarrassments, but even the sturdy farmers begin to feel a painful sense of vacuity in the region of the pocket, and an involuntary dread of duns and tax-gatherers. Indeed, all will admit that they are afflicted, more or less, with *hard times*, and now they ask, what is the remedy? The answer is soon told—*earn more money, and spend less!* "Oh," say they, "that is a stale precept, more easily preached than practised. We have always worked hard, and studied economy, and now, if we have got to work *harder*, and practice *more* economy, the cure is worse than the disease, and we may as well discharge the doctors." But stop, reader, is it not possible that you may learn how to work to better advantage, so as to earn more money without working harder. And may you not also learn how to spend your money to better advantage, so as to spend less, without lessening your enjoyments? All this, we believe, can be done, and our aim will be to show *how* it can be done. We ask any farmer to read over this one paper carefully, and then say candidly whether he has not gained from it some information respecting his profession, which will enable him to increase his profits, or lessen his expenses. We then invite him to take it for a year, and read it each month, and let his family read it, and then say whether it has not benefitted him many fold its trifling cost, and done much to ameliorate, if not to cure, hard times. If any one will answer us in the negative, at the end of the year, and bring back the papers, we will cheerfully return him his half dollar, and confess we were grandly mistaken.

AGRICULTURAL IMPLEMENTS.



Baldwin's Corn Planter.

The introduction of improved implements, or labor-saving machinery, next to the diffusion of knowledge, is the greatest means of improvement in any country. But especially is it the case in a country like this, where, owing to a sparse population, and the cheapness of land, the number of laborers is so small, in comparison with the amount of labor; and where, not unfrequently, the high price of labor absorbs all the profits of the farmer. Or, what is worse, his land is only half tilled, or his crops are neglected or destroyed, from want of sufficient help.

Much has been done, during the past few years, by way of constructing and introducing improved agricultural implements, in some parts of our country; but still much, and in some places, every thing, remains to be done. In our efforts to advance the cause of agriculture, we shall take especial pains to obtain, and bring into notice, every new or improved implement, which appears to be of value or worthy of trial.

The first we shall mention, is *Baldwin's Corn Planter*, a representation of which is given above. It consists of a square frame, 5 feet long and 15 inches wide, with two wheels near the front, 19 inches in diameter, and one a little back of the centre, 2 feet in diameter, having a broad iron rim to roll the ground on the seed; beneath are three cultivator teeth, or hoes, one of which opens the furrow for the seed, and the other two cover it over and form a slight ridge, which is immediately rolled smooth by the large wheel. On the top of the frame are two handles, behind, to guide the machine, and a hopper in front to hold the seed, the bottom of which is closed by a movable slide, with an aperture in it to allow the seed to drop through. On the shaft of the centre wheel are a number of teeth or cogs, which, as the wheel revolves, touch a spring which moves the slide, and thus drops the seed. These cogs are so arranged, that, by shifting the position of the spring, the seed may be dropped at the distance of 10, 15, 18, 24, or 36 inches. The slides are of wood, easily made, and, by having them with apertures of different sizes, seeds of any size, or in any quantity, may be dropped, from that of turnip, to a hill of corn or beans.

It is necessary to observe, that with all machines of the kind, the seed must be of such a nature as will readily fall through an aperture. Thus, very light, or irregular shaped seeds, cannot well be planted. It is also necessary that the ground be tolerably smooth, and in good order. This machine might be used with advantage on a majority of the farms in Western New York, and we think will be found highly valuable. It is said that a man, with a horse and a boy, can plant 8 or 10 acres of corn with it in a day.

We understand that it was used the past season, in some of the central counties of this State; and we hope some of our friends in that section, will send us some account of its operation. The machine may be seen at the Rochester Seed-Store, where a supply may be expected for sale in the spring.

☞ Other implements will be described in our next.

For the New Genesee Farmer.

Rohan Potatoes and Tuscarora Corn.

Messrs. Editors:

This is called an age of improvements, and I cannot see why we Farmers should continue treading in the old beaten tracks of our forefathers, any more than men of other trades and professions. For my part, I am one of those who love, occasionally, to make an experiment, and "find out some new thing." It is true, I am sometimes "hoaxed," or disappointed, owing to my own ignorance or the misrepresentations of others; still, I find in the end, there is always a balance in my favor.

I am indebted to Agricultural papers for much of the pleasure and the profit which I derive from my pursuit; and feeling that it is my duty to make some little return for the benefits received, I will give you occasonally, some account of my experiments, for the benefit of the readers of the "NEW GENESEE FARMER."

I purchased last winter at the Rochester Seed Store, two bushels of *Rohan Potatoes*, at $5 per bushel. I thought this was a great price, but the old maxim, "nothing risked, not much gained," led me to hope that my gain would not be small. I planted the potatoes on a light sandy loam soil, which was cropped with clover the year previous. A tolerable dressing of manure was spread on and turned under, and the surface well harrowed. I cut the potatoes into sets of one or two eyes each, and planted them in rows 3 feet 9 inches apart, and the sets 18 inches apart in the row.—they had one dressing with the cultivator and hoe, and were hilled up with the plough. They were harvested the middle of October, and yielded in good round measure, *one hundred and eighteen bushels*—from only these two bushels of seed.

The merits of this potatoe are, in my opinion, worthy of high consideration, especially its great productiveness. I truly think that twice the above quantity might be raised from the same amount of seed, after its habits become better understood. As to its qualities, for the table, I agree with the numerous accounts which have been published, in pronouncing them *good*—and I think no one need find fault on that account. At any rate, it cannot be said that they savor of the China Tree Corn "imposition."

TUSCARORA CORN.

So much has been said and written of late, on the subject of Corn, that it appears to me remarkable, that so excellent a variety as the Tuscarora, (or as some call it flour corn,) has been so rarely mentioned in our agricultuaal papers, and is so little cultivated. The reason, it seems to me, must be, that but few persons know any thing about it, or understand its excellence in constituting some of the luxuries of human susto-

nance. It is true this corn is not so heavy, or so profitable for making whiskey, or making pork, as some other kinds; nor is it as early as the red blaze or Dutton; still, it is a certain and profitable crop. Mine ripened finely last season, and would have done so this, had I not delayed planting until very late in the spring, on which account only half of my crop ripened.

This corn when ripe, is of a marble whiteness, and can be ground fine like flour, the meal having none of that rough harshness incident to the common meal.—Every person of correct *taste*, who "knows what is good," is of course fond of "*Johnny Cake.*" And let such a person once eat of it, rightly prepared from this corn meal, I am sure he will readily exclaim, "give me such evermore." This meal, when mixed with wheat flour, makes very superior *Bread*, besides which, it is exactly the thing for *Pancakes.*

The excellence of this article cannot be duly appreciated, unless rightly prepared; and as it requires rather different management from common, I will just say that one or two receipts will be given with pleasure, if thought desirable.

Yours, &c.
H. N. Langworthy.

Irondequoit, Monroe co., N. Y.

Mr. Langworthy will please accept our thanks for his communication, the reading of which has sharpened our appetite. We intend to call on Mrs. L. ourselves in a few days, to solicit the promised receipts for our next paper. And in order that we may be able to recommend them without fear of "hoaxing" our readers, we feel that it is *very desirable* that we should have their excellence *satisfactorily demonstrated* to us, according to the rules of *good taste.*

Edts. N. G. Farmer.

For the New Genesee Farmer.

"FARMERS' MEETINGS."

The prevalence of these meetings in some neighborhoods, and the well known respectability of many individuals who take a prominent part in their proceedings, sufficiently indicate that farmers are reaping their full share of the disastrous results which have followed the derangement of the financial concerns of our country. Rarely have the prices of produce been as much depressed, and the amount of money in circulation so extremely limited. He who calculated that his wheat and pork would pay his mechanic's and merchant's bills, and leave him a comfortable surplus to conduct the operations of his farm during the ensuing year, may find his pockets emptied, and his bills unpaid. It would seem then, not inappropriate, that we should be called together "to take into consideration the present distress," and to "devise means for our relief." Much complaint is made of those who manage the affairs of government; of the "profligacy of the Banking interest" of our country; and of the diversion of the means of trade into the hands of wild speculators, who have overrun us like the locusts of Egypt. To those who entertain these opinions, I would say, "let every man be fully persuaded in his own mind." It is a part of the duty of a good citizen, to exercise the watchfulness, as he bears the responsibilities of a sovereign; and closely to scrutinize the movements of those institutions which are chartered for the common benefit; he would do well also to take into consideration that he is not *necessarily* rich, because of the high prices of the village lots in his neighborhood.

But in addition to these, I would respectfully suggest to the conductors of "farmers' meetings," the propriety of introducing for discussion the following topic, which would prove quite as beneficial, in a pecuniary point of view, as either of the foregoing, or perhaps any other considerations. It is this; "*The general adoption of systematic processes, adapted to the improvement of our farms, and the increase of their productiveness.*"

Could an enlightened method of farming become general, we should, to a great extent, become independent of the fluctuations of the money market, and of the high or low prices of labor: not but that it is very desirable that these should be as uniform, and properly regulated as possible: but I think it is susceptible of the clearest proof, that labor *judiciously* bestowed, will, under almost any circumstances, ensure the proprietor a handsome return. To set this matter in a clear light, it may be interesting in future numbers of the "Farmer," to compare the common mode, with the system to which theory and enlightened experience have given a decided preference.

Wm. R. Smith.

Cooking Potatoes.

When you boil potatoes for dinner, pare enough for dinner and breakfast; throw a little salt into the water in which they are boiled, and when done, pour out the water carefully, and let the potatoes stand by the fire a few minutes. You will find them much better than when boiled in the common way without paring. Take what are left at dinner, and mash them while warm, adding a little cream and salt; then put them in a bake-pan, and, in the morning, you have only to set the pan into the stove, or before a brisk fire, for a few minutes. You will find this excellent. Some people use butter instead of cream, but the *genuine* article is prepared only with the latter. Ask the *Grahamites.*

Water Proof Composition for Boots & Shoes.

To one pint of Seneca Oil, add one ounce of Gum Elastic, (India Rubber,) cut into shreds, and one ounce of Lampblack. Let it stand three or four days, for the gum to dissolve, then stir it well, and the paste is fit for use. Rub it on to both soles and uppers, three or four times, before a fire, as long as the leather will absorb it. This composition renders leather soft and durable, as well as impervious to water

THE MAGAZINE OF HORTICULTURE,

EDITED BY C.M. HOVEY, BOSTON:

Published Monthly—10 pages—$3 per year.

The sixth volume of this valuable Magazine commences this day, (January 1st., 1840.) We have read it from its commencement, and cannot let this opportunity pass, without recommending the work to all of our friends who wish to enjoy the elevating pleasures of horticulture. It is after the plan of the English Magazines, and is the only work of the kind in the United States. It numbers among its contributors more than fifty of the most eminent horticulturists, Botanists, Nurserymen, &c., in the country. It should be in the hands of every one engaged in such pursuits, who wishes to understand his business, and keep pace with the improvements and discoveries of the age.

Subscriptions are received at the Rochester Seed-Store, where the work can be examined. Those subscribers, in this region, who have not paid for the past year, are requested to send in the amount without delay.

We extract the following article from the September number of the Magazine:

On the Cultivation of the Cauliflower.

On the cultivation of the Cauliflower, as practised on the farm of C. J. Wolbert, Esq., at Frankford, near Philadelphia. By Mr. Gregory Lee.

Having met with unprecedented success in bringing the cauliflower to the highest state of perfection, by the same simple process of cultivation as the cabbage, and, with the hope of stimulating others to "go and do likewise," I am induced to lay before you an extract from my garden diary:

"Purchased the seed of Messrs. Landreth & Co.; sowed it, broadcast, Sept. 18th, 1838, in a bed of common garden mould.

"October 26th, removed the plants into a cold frame of the same kind of mould.

"April 10th, 1839, transplanted them into the open garden.

"May 29th, cut for the use of the family."

These noble plants stood in the open garden, undaunted, and, with their neighbors, the cabbage, patiently endured the "pitiless pelting of the storm."

My success is fully demonstrated by the following statement of the circumference of six *heads* of the flowers, wholly divested of their leaves.

No. 1	3 feet 1 inch	8lbs.
No. 2	2 feet 7¾ inch	
No. 3	2 feet 6¾ inch	
No. 4	2 feet 6 inch	
No. 5	2 feet 5¾ inch	
No. 6	2 feet 5½ inch	

The circumference of the largest flower, as it stood in the garden, and taken at the *extremity of its leaves*, was 13 feet 7½ inches.

I continued to cut abundance of fine flowers, from May 29th to the middle of July.

My object, in this instance, is to give publicity, especially as flowers of this immense size *can only be obtained from fall plants.* I am a subscriber of yours, and I shall feel a pleasure in communicating and corresponding with you upon the subject of horticulture.

I am, gentlemen, respectfully yours,
Gregory Lee.

Frankford, near Philadelphia, July 31st. 1839.

A Good Crop of Indian Corn.

The following account of large crops of corn shows the advantage of good culture and the selection of the best part of the crop for seed. What gives so great a superiority to some varieties of corn or other vegetables, is a question that naturally presents itself to the inquiring mind, as he learns of an excellent variety, or beholds with admiration the astonishing product. It is attention in selecting the best of seed, and we have often urged upon readers the great importance of this subject.—*Yankee Farmer.*

BROWN CORN—MODE OF CULTURE.

Agreeably to our promise last month, we proceed to state the manner of tillage by Mr. Brown, in raising his abundant crop of corn. To this excellent method of culture may be attributed in part, his success which method would apply with benefit to any other kind of corn; but his corn we regard as superior in kind to any with which we are acquainted. Both the corn and the culture we consider worthy the attention of farmers.

Commencing in the Spring—his field having been the previous season sown to English grain, and in the fall the stubble plowed in—first, 25 cart loads of rotten manure were applied from the window heaps and yard, and the field was again plowed deep, burying the long manure and bringing the rotton to the surface and mixing it with the soil—the corn was then planted in hills two feet apart each way—three stalks only were left to grow in a hill—hoed three times—at the first hoeing, great pains were taken to clean the hills entirely from weeds, and at the other hoeings, the surface of the ground was merely passed over to cut up the weeds and loosen the top of the soil—keeping the surface of the ground all the while *perfectly level*, or in other words not hilling up *in the least*—used no plow, cultivator or harrow, after the planting, and did all with a hoe—cut the stalks at the usual time. This year he hoed part of the field but twice, the corn being so thick it was difficult to pass about among it without breaking the stalks. Crop, 116 bushels.

Mr. Lamprey, a neighbor of Mr. Brown, who raised 131 bushels on an acre, pursued a similar method of culture.

This mode seems to us to be a good one, although different soils may require different treatment, and the season may also vary the result. In a season like the past, wet and cold, we have no doubt but applying a part of the rotton manure in the hill, would be better than spread the whole; but in a dry season, manuring in the hill is less beneficial. Manure in the hill bringing the corn forward earlier, and, if the soil is sufficiently rich, so that the well fed roots, on striking out from the manure, are not starved and checked in their growth, is doubtless beneficial on late soils. We took particular notice of a field this year, on part of which the manure was spread, and on the other part it was applied in the hill—the latter was full a fortnight earlier than the former, at the time of cutting the stalks. Last year we had a piece which was manured in the hill, but the entire soil was not made rich—the corn grew well for a time, but soon it stopped growing and ripened very early, yielding a light crop. The reason of it is plain—the corn grew well while the roots were nourished by the manure in the hill, but when they grew beyond the manure, they starved.

The prominent points in Mr. Brown's method of culture is, spreading two coats of manure, first that which is rotten, and plowing that in deep, which brings the rotton manure near the surface to nurse the tender roots of the young plant, and leaves the long manure deep to feed the larger plant and mature the full ear; and also keeping the surface perfectly level, Mr. B's. success proves the method a good one, and reason approves it.

The *second planting of corn*, does not amount to any thing—the stalks are barren of ears. This fact has been observed by many, but the cause could not be assigned. Now the reason is very obvious—it is this: The main part of the field gets out of the tassel before the late planted gets in the tassel, the consequence of which is, the silk of the late planted does not receive sufficient pollen from the tassel to produce the kernel of the ear. For the same reason a stalk of corn standing alone will not produce a full ear.

In case of corn not coming up well, or being destroyed by worms, we would recommend supplying the deficiency by planting beans or potatoes; or if not so late but that a second planting would answer, to plow the field and plant the whole anew. We have the past season tried (to our satisfaction) the second planting of scattering hills where the corn has failed. The product was fodder and nothing else. We noticed whole hills of this second planting of three or four stalks, without a single ear or a set for an ear, any more than is found upon a stalk of broom-corn.—*Cheshire Farmer.*

LAST SPEECH OF JUDGE BUEL.

The following extracts are from the Address delivered before the New-Haven County Agricultural and Horticultural Societies, September 25th, 1839, by the Hon. Jesse Buel, whose lamented death took place at Danbury, the following week.

I appear here, gentlemen, by invitation, to address you on the cultivation of the soil, which it is the object of the associations here convened to promote improvement in. I have been prompted in the undertaking, rather by a *desire* to render a service, than from a confidence in my *ability* to perform one; and if, the few remarks I have to offer, shall need much of your indulgence, for defect in style and deficiency in matter.

Agriculture and Horticulture are intimately related to each other. They both depend upon the soil, and animals and plants which it nurtures, for support, for profit, and for pleasure. They both administer, and are indispensable, to our wants and comforts. They are governed in their operations by the same natural laws. Agriculture has cognizance of the farm, which supplies our principal wants: Horticulture, of the garden, which administers to our more refined appetites, to our health, and to the rational pleasures of the mind. The one gives us bread and meat, and the materials for our clothing: the other, the choice delicacies for the table, and multiplies around us the charms of floral beauty and rural scenery. Both tend to beget habits of useful industry and sober reflection, and to improve us in all the social relations of life. It is befitting, therefore, that institutions designed to foster and promote improvements in these primary and associate branches of labor, should unite in their anniversary celebration, and in returning thanks to the Supreme Being, for the bounties of a fruitful season.

Of the utility of these celebrations, and exhibitions of the products of the farm and garden which are made at them, I have no kind of doubt. They bring to public notice whatever is new and most valuable, in a business which highly interests us. They perform the work of years, in diffusing useful knowledge in all the departments of rural labor. They awaken, in the bosoms of hundreds, the dormant powers of the mind, which otherwise migh have slumbered in apathy. They excite to industry, emulation, and to the study of those laws which every where control the visible creation, and which enlighten and reward all who humbly seek and follow their counsels. Nor is it the cultivator of the farm and garden alone that are to be benefited by these exhibitions. Whatever tends to increase and improve the products of the soil, serves to augment the common stock, and enables the grower to supply the market with more and better products, and to buy more liberally of the other classes in return. The merchant, and the manufacturer, the mechanic, and the professional man, have all, therefore, as deep an interest in promoting the improvement of agriculture and horticulture, as the farmer and gardener have. Society is in some measure a joint concern, at least so far as relates to what are termed the producing classes; the more these earn by their labor, the greater is the accession of substantial wealth to the community. The amount of honey in a hive, depends not upon the number of bees which it contains, but upon the labor and skill of the *working* bees. The farmer virtually provides for the other classes, and is at the same time their principal patron and customer; and although his labors are too often held to be low and menial, by those who cannot or will not appreciate their value, his condition affords the best criterion by which to judge of the welfare of those around him. No *country* can long flourish, or preserve its moral and physical health, whose agriculture is neglected and degraded.—The amont of a farmer's sales, and of his purchases, will depend upon the surplus products of his farm, and upon the profits of his labor. Double these by an improved system of husbandry, which I feel assured can be done, and which has been far more than realized, in many old districts of our country, and you will double the substantial wealth of the neighborhood, and impart corresponding life and activity to every other department of business. If we look to Spain, to Portugal, to a great portion of Italy, to South America, or any other country where agriculture is neglected, or holds but a subordinate rank, we shall find a degraded population, characterized by superstitious ignorance, poverty, and crime. Every class of the community, therefore, has a deep interest in promoting the improvement of the soil; and all should willingly contribute their aid towards enlightening, honoring, and rewarding those who are honestly employed in its cultivation. * * *

The great obstacles to horticultural improvement are ignorance of the relative merits of different kinds of fruits and culinary vegetables, and of the proper modes of cultivating and preparing them for the table. The generality of country gardens exhibit but a scanty assortment of vegetable productions, and these are but badly cultivated, and often of inferior quality. The tendency of horticultural exhibitions is, to show the good and bad in contrast, or rather to promulgate a knowledge of the better sorts, of their culture and use—to excite useful competition, and to demonstrate the utility of garden culture, as a source of health, pleasure, and profit. I have had many fruits presented to me, which the donors considered of the first quality, but which I found, on comparison, to be of secondary, or inferior grade. The man who has seen or tasted only inferior fruits, may well mistake them for good ones. It is as easy to cultivate good fruits as bad ones; and no one eats so good fruits as he who cultivates them himself. It is as easy to cultivate the vergalieu as it is the choke pear; the green gage as it is the horse plum; and yet the difference between them, in all the qualities which we most esteem, is incomparably great. But until we can show our neighbor better fruits, he will continue to cultivate and rest content with his choke pear and horse plum.

With regard to what is termed ornamental gardening, or the cultivation of flowering shrubs and plants, there is an objection, real or affected, often made by very many people, on the ground that it yields no profit. If the great object of life was to accumulate money, without enjoying any of the comforts which it confers, save the gratification of animal appetite, the objection would be conclusive. But we are endowed with other and higher appetites than the mere brute; and Providence has every where surrounded us with suitable objects for their developement, and innocent gratification. And shall we reject the proffered benefaction so kindly tendered for our benefit, because it adds nothing to our pelf? And what is there in the natural creation, better calculated to soften down the rough asperities of our nature, to awaken kind feelings towards each other, and excite reverence and love for the Most High, than a familiar acquaintance with the wonders and beauties of His vegetable kingdom? Did you ever know a misanthrope, or a miser, who was an admirer of flowers? I would not recommend the neglect of more important duties for the culture of a flower garden: yet when there is ability or leisure, and these may be found to a greater or less extent in almost every family, a taste for floral beauties should be inculcated in the young, not only as a source of rational pleasure, but as a salutary precaution against bad companions and bad habits. The mind must be employed, and must have recreation. It is better to direct it to the works of the Creator than to the works of man. Lord Bacon has said of the garden, "it affords the purest of human pleasures—the greatest refreshment to the spirits of man—without which, buildings and palaces are but gross handiworks." * *

Among the causes which have essentially contributed to the deterioration of our lands, and the consequent depression of our agriculture, I consider the following as prominent:

Ignorance of the *principles* of agriculture;

The want of a sufficient outlay in the management of our farms; and

The low estimation in which the employment has been held by all classes, including farmers themselves.

Agriculture has too generally been considered a business requiring mere physical power, with which the principles of natural science had little or nothing to do. To plough, sow, and gather the crop, has been the general routine of farming operations, regardless of the poverty which our practice was inflicting upon the soil and upon our children. Like the reckless heir of wealth, we found ourselves in possession of a treasure; and without inquiring for what purpose it came into our hands, or realizing our obligations to husband and preserve it, for others, we have squandered it lavishly, through our ignorance or our folly. True, we have been occasionally admonished of our error by the schoolmen; who, wrapped in abstract science, and knowing little practically of its application to husbandry, have as often tended to confuse and mystify, as to enlighten and instruct. Hence the prejudice which has arisen against book-farming. But science and art are now uniting their labors, and are deriving mutual aid from each other, on the farm, as they have for some time been doing in the manufactory and in the shop of the artisan. A new era is dawning upon the vision of the farmer; new light is illuming his path, and a new interest and new pleasures are urging him on to improvement. He begins to study the laws which Providence has ordained for the government of improved culture, and he finds in their application to his labors, the means of increasing profits and high intellectual enjoyment. And the more he studies and is guided by these laws, the more does he become satisfied of former errors, and of his comparative limited sphere of usefulness. Science is probably capable of rendering more important services to husbandry than to any other branch of labor, and presents a wider field of useful study to the cultivator of the soil, than to any other class of society.

The deficiency in farming capital, or rather the stinginess with which capital is employed in improving and maintaining the condition of our lands, is another cause of declension in the profits and character of our agriculture. The farmer is too prone to invest his surplus means in some new business, or in adding to his acres, instead of applying them to increase the profits of his labor and the products of his farm. He either works more land than he can work well and profitably, or he diverts to other objects the means which would yield a better return if applied to the improvement of the farm. He is apt to consider twenty or thirty dollars an enormous and wasteful outlay upon an acre of land, or upon a choice animal; and yet the interest of this outlay will be ten times paid by the increase of the animal; and in most cases the principal also will be returned to him in the course of two or three years. Many of the most thriving farmers in southern New York, New Jersey, and Pennsylvania, make a quadrennial expenditure of twenty dollars or more to manure an acre; and it has become a maxim with them, that the more the outlay for manure, the greater the net profit of their lands. But it is not the outlay for manure alone, that demands a liberal expenditure of capital. Good seed, good farm stock, and good implements, are all essential to the economy of labor, and to neat and profitable farming. And I think it will appear from the cases I have quoted, that in many locations, capital may be very advantageously employed in reclaiming wet and marshy grounds, generally rich and the most productive when laid dry.

When our cattle grow lean, and threaten to disappoint our hopes of profit, we do not hesitate to impute the evil to the want of food, or to inattention in the herdsman. And if we are prudent mangers we at once graduate our stock to our food, knowing that one well fed animal is of more value in the market, than two animals that carry but skin and bones, and take care that the food is properly fed out. When our crops become lean, we need not hesitate to ascribe the decrease in product to like causes—want of food, or want of attention in the farmer; and prudence and profit in like manner require, that our crops, like our animals, should be limited to the food and labor which we have to bestow upon them. In other words, an acre well manured and well worked, will be found to be more profitable than four poor acres badly worked.

I may be here asked, from whence are to be obtained the vast supplies of manure requisite to manure our old lands? I answer, from a multiplicity of sources around us—from every animal and vegetable substance within our reach. Nothing that has once been part of an animal or vegetable, but can be converted into corn, grass, and roots. I think I may assume as facts, that upon an average, not half the manure is saved upon our farms that might be, and this moiety is half lost before it is applied to the soil. Every horse, ox, or cow, wintered upon the farm, if well fed, and littered with the straw, stalks, &c., of the crop, should make from six to ten cords of good manure. Dr. Coventry, late professor of agriculture at Edinburgh, estimated that the straw of an ordinary acre of grain, computed at 21 cwt., may be converted by the urine and liquids of the stables and cattle yards, into three and a half tons of manure; that meadows that cut one and a half tons of hay, will give four tons of manure; clover, the first year, six tons, and the second year, five and a half tons per acre; and that with the extraneous substances which may, with due care, be collected without expense from the roads, the ditches, the ponds, and from refuse of every kind about the house and premises, the acreable amount should be amply sufficient for a full supply of manure once during every course of the four years system of husbandry. Arthur Young, with six horses, four cows, and nine hogs, which consumed sixteen loads of hay and twenty-nine loads of straw, obtained 118 loads of manure, 36 bushels to each; and from 45 fatting oxen, well fed and littered, 600 tons of rotten manure. But an American lawyer, and an excelent practical farmer withal, has gone beyond these estimates. I visited his farm a few weeks ago, which lies upon the sea shore. It consists of about 200 acres, most of which was in a course of crops. The crops of the season had all received an ample supply of manure, as their appearance indicated—and yet I was shown masses of well prepared compost, in reserve, consisting of yard manure, pent ashes, sea weed, and fish—estimated at twenty-five hundred loads—all produced upon his own farm.

The third obstacle to agricultural improvement, which I propose to notice, is the subordinate rank to which this employment has been consigned, and to which the farmers themselves have contributed, by a

want of respect for themselves and respect for their vocation. The wholesome habits of society have been so broken up, by the civil and political convulsions of the age, and the inordinate thirst for acquiring wealth and fashionable consequence, through mercantile and other speculations, that honest productive labor has been thrown entirely into the background, and considered not only ungenteel but menial and servile. Yet I venture to lay down this proposition, that he who provides for the wants and comforts of himself and family, and renders some service to society at large, by his mental and physical industry, performs one of the high duties of life; and will ultimately be rewarded in the conscious rectitude of his life, by a greater measure of substantial happiness than he who makes millions by fraud and speculation, to be squandered in extravagance or wasted in folly, by his children or grandchildren. The revolutions that are constantly taking place in families, sufficiently admonish us, that it is not the *wealth* we leave to our children, but the industrious and moral habits in which we educate them, that secures to them worldly prosperity, and the treasure of an approving conscience.

The farmers, I have remarked, share in the errors of the day. Not content with the gains which are ever the reward of prudent industry, and which might be greatly increased by the culture of the mind—nor content with one of the most independent conditions in society, hundreds and thousands of them seek other and new employments, and some of truly menial character, to get rid of labor, the greatest blessing of man, and to raise themselves in the imaginary scale of fashionable society. And if they cannot participate themselves in this imaginary greatness, (and it is seldom any thing more than imaginary,) they are anxious to inflict the evils upon their posterity,—to rear their sons to the law, the rail road to office,—to political power and turmoil;—to make them merchants, a useful but greatly overstocked business, or to place them in some other genteel employment, which shall exempt them from the toils of labor, the salt that best preserves from moral corruption.

Mistaken men! What class in society have within their reach so many of the elements of human enjoyments—so many facilities for dispensing benefits to others—one of the first duties and richest pleasures of life—as the independent tillers of the soil? "The farmer," says Franklin, "has no need of popular favor; the success of his crops depends only on the blessing of God upon his honest industry. If discreetly conducted on the improved principles of husbandry, agriculture offers the certain means of acquiring wealth, and as rapidly as is consistent with the pure enjoyments of life, or with the good order and prosperous condition of society. Agriculture is the golden mean, secure alike from the temptations of mushroom opulence, and the craven sycophancy and dependence of poverty. "Give me neither poverty nor riches," was the prayer of the wise man of Scripture, "lest," he added, "lest I be full and deny thee, and say, who is the Lord? or lest I be poor and steal, and take the name of my God in vain."

The Value of Observation to the Farmer.

Perhaps to no man or class of men is the value of observation so great as to the farmer. His business is principally with natural objects. His occupation leads him in many things to imitate or follow nature. But the laws of nature are learned only by watching the silent processes and the silent operations which are going on, and thus ascertaining the causes which produce the effects which we see taking place around us. The man who watches closest—who suffers no change to take place without looking into the cause—who, in fine, observes the most, and treasures up the most in his memory, becomes most acquainted with the laws before spoken of, and by consequence is the best farmer. Although the observations which have been made and recorded by others, have become a large fund of valuable information, there is yet a vast deal more to learn. Facts are yet in the dark which can only be elicited by observation.

It would be interesting to have a history of many of the useful improvements that have been made from slight observations, which first gave the hint to set the experiment on foot. Mrs. Child gives a pleasing statement of the value of observation in one instance.—A farmer not fifty miles from Boston, says she, is quite famous for the improvement he has made in the wild grape. He found a vine in the wood which dozens of his neighbors passed every week, as well as he; but he *observed* that where the oxen fed upon the vine the grapes were sweetest. He took the hint. The vine was transplanted and closely pruned. This produced the same effect as browsing had done; the nourishment, that in a wild state supported a great weight of vines and tendrils, went entirely to the body of the grape.—His neighbors would have known this as well as he, if they had thought about it; but they did not *observe*.

It is by thus observing that we are enabled to gather experience, and experience guides to future success.—The observations that have been made in regard to the grain-worm, or *weevil*, as the insect is sometimes called, led many farmers to sow their wheat late. By so doing they have saved their crops. It has been observed that the insect came out at a certain time in the summer and remained active a certain number of days. Hence, by sowing the wheat later so that it would not be headed out, it would escape the ravages of the insect in question. This has succeeded well with most farmers.

A farmer who will probably have 500 bushels of good wheat, told us, the other day, that had he sowed it ten days earlier, as he intended to do, he would have lost the whole. But, being informed of the observations that had been made in regard to the weevil, and advised to suspend operations for ten days, he complied, and thus saved his crop.—*N. E. Farmer.*

From the New England Farmer.

CARROTS AND RUTA BAGA.

The product of these crops is not so large in this State as to require much expense or pains in their preservation. An acre of ruta baga or carrots is, upon the whole, a large quantity for any one farm.—As yet, our farmers, in the cultivation of roots for stock, are slowly feeling their way. We hope they will come right at last; and that small experiments will encourage them to extend the cultivation. They will presently learn that for keeping stock, there are many much more profitable crops than English hay at a ton or a ton and a half to an acre; and by turning their attention to other crops, by which they will have it in their power to keep much more stock, they will increase their manure heaps, and in this way quadruple, in some cases increase ten-fold, the productiveness of their farms.

An acre in carrots may be easily made to yield six hundred bushels. In the estimate of an experienced and excellent farmer in Berkshire county, half carrots and half oats are as good feed for a horse as all oats; or rather to use his own expression, he would prefer one hundred bushels of carrots and one hundred bushels of oats to two hundred bushels of oats for his horses. The experience of a distinguished farmer in England, in the practice of keeping eighty horses on his farm, and in his colliery, entirely confirms this statement. Now a bushel of carrots a day with chopped straw or salt hay, would, we have no doubt, keep a work horse in high condition, though it would probably be much better in the case to give him in lieu of so many carrots, some grain or meal. Half a bushel of carrots per day, however, at twenty-five cents per bushel, cut off from the allowance made above, would pay for an allowance of a peck of oats per day to a horse. Upon the supposition then, of his being kept in the stable six months or one hundred and eighty-three days in a season, an acre of carrots yielding six hundred bushels to the acre, supposing one-half to be sold at twenty-five cents per bushel, and the money expended in oats at thirty-seven and a half cents per bushel, to eat with the carrots, would considerably more than furnish three horses with half a bushel of carrots each per day, and two bushels of oats per week, or more than a peck of oats per day besides the half bushel of carrots. Under this feed a horse would require very little long feed of any kind to keep him in good condition.

Now, on the other hand, suppose the horse has English hay, and if he is worked he ought to have as many oats as in the former case, besides, one horse will consume in that time, at twenty-five pounds per day, not less than two tons and a quarter, or the three, six tons and three quarters: and this can hardly be obtained from less than seven acres of land of ordinary yield. The horses will not, in the next place, be by any means in so good condition; and the manure made from this feed not half the value as that made in the other case.

This is, many will say, a remarkable statement, but it is well founded and not at all exaggerated. In other respects it deserves particular consideration. There cannot be a doubt of the advantages, to our animals, in respect to health and comfort, which the use of succulent vegetables in some proportions, would have over the dry feed, which we are accustomed in our present mode of keeping to give them in the winter season.

We might go on to speak of the green vegetables for stock in winter; the sugar beet, the ruta baga, the parsnip, &c. &c., but it does not come within our design to treat this subject more fully at this time.

Our intention now, was merely to speak of the mode of preserving these vegetables through the winter. We say then distinctly and emphatically, that neither ruta baga, nor turnips, nor cabbages, should ever, under any circumstances, be put in any considerable quantities in the house cellar. The least decay produces an offensive odor and poisons the air of the cellar and of the house. Carrots and beets are by no means so bad, but they, if placed in large heaps, are liable to become heated, and to decay; or otherwise to sprout, when their nutritive powers are of course lessened.

We have kept them well in several cases, and often known them kept well by others, by pitting them in a field, thus: Take a dry knoll near where they were raised, dig a trench about a foot deep, lengthwise north and south; and of such width as you choose, and then after the tops of your carrots and ruta baga are cut off, put them into this trench, piling them up as high as they will lay, in the form of a house roof—do this when they are dry; then put in a light layer of straw and cover it lightly with dirt, piercing some holes in the top of the heap with a crow bar, to let off the steam; and so let them remain until the severe frosts are about setting in; then put on another covering of straw and a thick covering of earth, fastening up the south end with several bundles of straw, which can be removed at pleasure. They may be put up in heaps of one, two or three hundred bushels, or more, as may be desired. They will keep well in this way, and in pleasant days they may be got at without inconvenience at any time as you may want them for your live stock. You must be careful to see that there is an escape for the steam after they are first put up, otherwise they may disappear without your suspicion, and very much to your chagrin. H. C.

From the Cultivator.

Causes of Seeds not Germinating.

We have known and heard of considerable loss and disappointment from seeds, particularly onion seeds, not growing. We have thought and inquired in reference to the cause, and the result of our cogitations and enquiries may be thus stated:

Without a certain degree of moisture, seeds will not germinate. On dry, sandy soils, and in a dry season, it seems highly probably, then, that seeds may be deprived of the requisite degree of moisture: perhaps receiving just as much as will mould them and destroy their vitality, or being so near the surface as to be injured by the sun's heat and light.

But the seeds may have germinated, and have commenced to send out their roots and stem stalks, and yet be destroyed. If the soil is not pressed closely to the seeds, and very dry weather occurs just at this period of the process of germination, the root being too distant from the soil, and too feeble to draw any supply of moisture, the liquid food of the plant contained in the fermented seed may be dried up, and the life thus destroyed.

If you would avoid disappointment and loss from seeds failing to grow, the preventive process is indicated by a knowledge of the causes most frequently productive of this result, which we think are those stated above. If you sprout your seeds before putting them into the ground, you will preserve them from the first cause of failure, but if you pulverize your soil thoroughly and press in this state with a hoe, spade, or roller, upon the seeds thus sprouted, the root stem will soon and surely derive sufficient moisture from the soil.

In a few instances I have found my neighbors blaming the seeds as useless, particularly of onions, carrots, and parsnips, when I have obtained a little of the seed and found it to sprout quite well. You may easily save yourselves from such reflections, or from the temptation to blame others, by steeping the suspected seed in warm or tepid water, from six to twenty-four hours, according to the size and hardness of the seeds, and then setting it away in a warmish place for a day or two.—If good it will sprout in this time; if kept warm in a darkish place, and it does not sprout in this time, the seed is faulty.

In connexion with this subject, I may state that several circumstances incline me to the belief that corn which has been sprouted—no matter in what steep—is safe from the ravages of the red or wire worm. It has been fashionable to steep in a strong solution of copperas, and to ascribe the safety of the seed in this state, not to the change which fermentation has produced in the germ or chit which is usually first attacked, but to the change in the taste from the copperas. We have known corn soaked in simple water—in water alone—to escape from the attacks of the worm as well as that soaked in a copperas steep. Until this matter is made more certain, however, I would hold it bad husbandry to neglect the copperas, as, in addition to the change produced by heat and moisture, we have also the disagreeable taste communicated by this salt.

The following communication was written for the late "Genesee Farmer," and Mr. Tucker *kindly* published it in his weekly paper, (which had only a small circulation,) but refused it a place in the monthly, although he inserted the article from Mr. Thorburn, of which we complain. As it is a matter which affects our reputation, and that of our establishment, justice to ourselves demands its publication in this paper. And lest our friend Thorburn should complain of injustice, we also insert his communication referred to.

CHINA TREE CORN:

And the "Rochester Seed Store."

Mr. Tucker—Since my return from England, I have been looking over the Agricultural papers received during my absence, and observe numerous articles on the subject of Thorburn's celebrated China Tree Corn, most of which condemn it as an "imposition," "humbug," &c. Many of the writers obtained their seed directly from Mr. Thorburn, and of course must look to him for any explanation they may require. But others obtained it through different seedsmen, and seem inclined to suspect them of selling a spurious article for the sake of gain.

In your paper of the 7th of October, is a communication from Syracuse, signed W., and headed "Gross Imposition." The writer, after stating that he was induced to try the corn from reading Grant Thorburn's glowing account of it, complains that it did not answer the description, and proved inferior to our common varieties. He then adds:

"We look upon the matter in this section, as a gross fraud practised upon the public for the sake of gain. The odium at this time is principally attached to Mr. Thorburn, inasmuch as he has the credit of furnishing all the seed; some of which, I am informed, came directly from his store in New-York; most of it, however, that was planted in this vicinity, came thro' the '*Rochester Seed Store*,' but was said to be genuine seed from Thorburn's. We look for a satisfactory explanation."

In the Farmer of November 9th, is a reply to W. from Grant Thorburn himself. But, to me, it is far from being a "satisfactory explanation." He says, he "*thinks W. has not got the true kind*," and then adds, "the seed sold by his sons in New-York, Albany and St. Louis, was genuine." I am afraid old friend Laurie is becoming rather uncharitable of late, and since he is so free with his insinuations, I shall have to "unfold a tale" which, I fear, will render his defence of but little service to him.

Soon after Mr. Thorburn published his wonderful corn story last fall, I began to have numerous inquiries after the seed. Accordingly, on visiting New-York in October, I purchased of Mr. G. C. Thorburn a quantity of the corn, and was informed that his supply was limited and selling rapidly. Soon after reaching home, this lot was all disposed of, and I sent to Mr. Thorburn and obtained an additional supply.—This was all sold during the winter, and as the spring approached, the demand seemed to increase. By this time, I expected to hear that Mr. Thorburn's stock was entirely exhausted, as he had stated that he only raised a small patch of about 200 hills; but to my surprise, I was informed that his supply was still adequate to the demand, although orders poured in upon him from every quarter. O, rare Laurie Todd! thought I, your corn is certainly "something new under our sun," and well did you name it "Prolific," for it seems to possess the miraculous properties of the ancient Widow's oil—the more you draw from it, the more there is left! Being rather skeptical on the subject of modern miracles, I determined to inquire into the mystery. I then learned that the wonderful "new variety" was an old acquaintance among the farmers of Long Island, several of whom had cultivated it for a number of years, and were then selling their crops to Mr. Thorburn, to supply the immense demand which he had occasioned.

Supposing I had contributed my share towards the nameless "charitable institutions," I now purchased a further supply of seed from Mr. G. R. Garretson, of Flushing, which I have the fullest proof was the same in every respect as was sold by Mr. Thorburn. All that was had or sold at the Rochester Seed Store, were the two lots from Mr. Thorburn and one from Mr. Garretson.

The following letter was lately received from Mr. Garretson in relation to the seed from him:

Flushing, L. I., Nov. 5th, 1839.

Mr. M. B. Bateham—

Dear Sir: In answer to your inquiries about the China Tree Corn, which I sold you last spring, I would state, that it was precisely the same as was advertised and sold by Mr. Thorburn, under the name of "China Prolific Tree Corn." It was raised by Mr. Jonathan Mingo, of Flushing. Mr. Thorburn purchased some of the same man, and I sold Mr. Thorburn some of the same lot as that sold you.

Yours, &c. G. R. Garretson."

Owing to its southern complexion, I always had some doubts of the adaptedness of the corn to this northern climate, and I never recommended it to my customers, any more than to refer them to Thorburn's own account of it, and let them take it on his responsibility alone. My patrons may rest assured that I shall always be ready to give full, and I trust, "satisfactory explanation" of any matters affecting the reputation of the Rochester Seed Store. The task of a seedsman is generally a thankless, as well as a difficult and responsible one. And while I do not mean to shrink from any blame or responsibility which justly belongs to me, I cannot consent to become responsible for the statements of every puffing "new variety" monger, who may have a fine patch of corn or potatoes to dispose of; even though the profits are to be given to charitable institutions.

M. B. Bateham.

Rochester Seed Store, Nov. 25, 1839.

P. S. I am frequently asked, what "charitable institutions" received the donation promised by Mr. Thorburn: and some persons actually suspect that he pocketed the funds. But any one at all acquainted with the unimpeachable character of Grant Thorburn, considers that to be an impossibility. The only reason I can give for the non-appearance of any public acknowledgment, is, that it would be offensive to the modesty of the donor, who doubtless wishes to "let his alms be done in secret." Still, as this money was made up of contributions from many who do not think they received an equivalent in return; justice to their feelings renders it necessary and proper that the receipt of the donation should be publicly acknowledged.

From the Genesee Farmer.

Astoria, L. I. (late Hallet's Cove, Oct. 21, 1839.

Mr. Tucker—In your Monthly Farmer for October, page 145, is a piece signed W. He begins with *Gross Imposition*, and then gives my description of the corn. Now, Mr. W., if you will substitute 10th of *August*, in place of the 10th of July, I assure you in the *words of truth and soberness*, that every word in that description is *plain truth*. Different climate, bad soil, or spurious seed, might have been Mr. W's. misfortune. Because a man, born blind, says the sun don't shine on the 4th of July, this will not persuade us out of our senses.

Mr. Tucker, this thing was not done in a corner. In 1838, scores of my neighbors saw my corn when growing; this summer, hundreds visited my field; at the offices of the Journal of Commerce, Commercial Advertiser, Daily Whig, and at No. 11 John-street, New-York, and I believe, at William Thorburn's Seed-store, in Albany, may be seen stalks of the corn: having ears growing on the tip end of the branches, as they stood in the ground. If Mr. W. or any of his neighbors come to Albany or New-York this fall, they ought to call and see for themselves. There has been no *underhand* nor *double dealing* on my part in this matter. I put my name to every communication I made on the subject. I said it is an *early corn*, and I say so still. We have earlier kinds, to be sure, but they are small. This season I planted on the 12th of May, and on the 22d of September my Chinese corn was dry and *gathered* into the *crib*. Mr. W. says it will not ripen with him. I think he has not got the true kind. I have advices from all quarters; in some cases it failed entirely; in some it turned out better than my own. I will give you the following, from many I received of the same import:

Otsego, Tioga co., N. Y. Oct. 10, 1839.

Friend Thorburn—I am very happy to say to you, that my gardener, (procured for me by your son,) has raised from your *Chinese corn*, this season, the finest crop I ever saw of *any* corn; all two and *five* ears, and the crop will be at the rate of *more* than 100 bushels to the acre.

Very respectfully, your friend and servant,

George I. Pumpelly.

Now, Mr. Tucker, I am a stranger to Mr. P., or rather he is a stranger to me, as I never knew there was such a man in the world, till I received the above letter. I am not sure, at this moment, where Owego lies, but I should think the corn that ripens at Owego, would not be too late for Rochester. I know the Chinese corn sold by my sons in New-York, Albany, and St. Louis, was genuine. After my crop was sold last year, they obtained a supply from Samuel Parsons, of Flushing, L. I. This season I planted seven rows of his corn along side of my own; they were alike in all respects. In 1838, I planted only about two hundred hills, producing six or seven hundred ears; this season I planted a small field; when in its milky state, it was blown down in a storm of wind and rain, with the exception of ten or twelve hills. It was then ten feet high, and being heavy with ears it never rose, notwithstanding, I gathered upwards of ninety bushels from the acre.

Without all controversy, Mr. Tucker, this is a valuable corn, and will take the lead of all other sorts in the middle states, at any rate. Perhaps it may not ripen in the northern parts; but I planted the Dutton on the same field, on the same day; the Chinese was only a week later in boiling. The Editor of the Painsville (O.) Telegraph, says he has cultivated a patch of Thorburn's Chinese corn this season—the "yield averages four *large, sound, ripe ears*, for every kernel planted."

I will only observe, in conclusion, that I do not think the Agricultural Journals, Registers, and Farmers, have (in general) dealt with this same corn, while the accounts are as opposite as light and darkness; they have published the dark, without throwing any *light* on the subject. I refer not to you, Mr. T., for this number, now in hand, is the only one I have seen in six months. As your correspondent requests an explanation, I doubt not but you will give this a place in your Farmer.

Yours, respectfully,

Grant Thorburn.

HATCHING EGGS BY STEAM—THE LONDON CHICKEN MANUFACTORY.

What will not the inventive genius of man accomplish by the use of steam? Who can estimate the amount, or enumerate the kinds of labor, which Yankee ingenuity has made this agent perform? Our country is famous for its Steam-boats, Steam-cars Steam-guns and Steam-doctors, but who, in the 'universal Yankee nation,' ever thought of a *Steam-chicken manufactory?* Yes, hatching eggs by steam! and that, too, not only as an experiment to satisfy the curiosity, but as a regular and profitable business.

This novel exhibition we lately witnessed in London; and, of all the strange sights of that city, we saw few that interested us as much as this. We intended to write a description of the scene ourselves, but, finding the following more particular account of it in *Chambers's Journal*, we publish it in preference to our own:

EGG-HATCHING EXHIBITION.

A short time ago, while in London, I went to see among other "sights," the much-talked-of egg-hatching-apparatus, or, as it is called by its proprietor, the Eccaleobion—a word from the Greek, signifying to bring to life. The establishment is situated in Pall-Mall, opposite the Italian Opera-House, and consists of a large handsome back apartment, entered by a passage from the street.—The first feeling on entering the room is that of rather a warm atmosphere, along with the slight smell of a poultry yard, which the place literally is. On one side, on your left, is a huge oblong case against the wall, elevated three or four feet from the floor, and used as a hatching oven; on the opposite side, running nearly the length of the room, is an enclosure formed of paling, separated in distinct divisions for different sizes of birds, and containing, close to the wall, a row of coops or houses for the little creatures to run into. At the farther end of the room is a glass-case on a table, in which the birds of one day old are kept and nursed; and in the centre of the room is a table with a number of saucers, in which lie the yolks of eggs at different stages of advancements toward maturity, but which being broken are of course useless for hatching; they only exhibit the progress of the chick. Such is the general outline of the establishment, which is fitted up with iron steam-pipes running round the room to preserve a certain temperature; and with a man, who attends the oven, and a woman to look after the poultry-yard or enclosure, the whole is before the eye of the visitor.

The first thing we do is to take a peep into the oven, where the process of incubation is performed. This oven executes the office of the parent hen, and in a remarkable perfect manner; in fact, much better than most hens could perform the operation.—Every body, who has any thing to do with hatching poultry, knows that the great difficulty consists in keeping the hen upon her eggs. Some hens are better hatchers than

others, but, generally speaking, they are too apt to leave their eggs to get cool; and this, by checking the incubation, at once destroys the unborn chick. By the Eccaleobion process, this chance of loss is entirely avoided. If the egg be a fresh good egg, it must give up its chick; nothing can keep it from being hatched. The oven or case, as we have said, is a large oblong box projecting from the wall. It is to be divided into eight compartments, like the floors of a house, and each exposed to view by means of a glass door. To satisfy our curiosity, the door of one of the compartments was thrown open, and on looking in we perceive that the interior is a sort of shallow box lined with cloth, heated with steam-pipes, and the bottom covered with eggs lying at an easy distance from each other. A jug of water is placed among the eggs, for the purpose of supplying the air of the box with a necessary degree of moisture. Thus, each comparment or box is a distinct oven with its own eggs, and in each the eggs are at a particular stage of advancement. In one box they may be but newly put in, and in another they may be in the act of being hatched. The meaning of having eight boxes is to insure a batch of chicks every two or three days. Each box holds from two to three hundred eggs, or the whole upwards of two thousand.

An egg requires from twenty to twenty-three days to hatch, according to its quality and other circumstances; the exact time is allowed to be twenty-one days; but such is the variety of eggs, that a batch will require three days in entirely chipping. The progressive series of phenomena during incubation, as exhibited in the broken eggs on the table of the room, are exceedingly interesting, particularly that in which the heart is seen beginning to beat on the surface of the yolk, and are as follows: I quote from a pamphlet handed to visitors:—

"1st. day. In a few hours after exposure to the proper temperature the microscope discovers that a humid matter has formed within the lineaments of the embryo; and at the expiration of twelve or fourteen hours, this matter bears some resemblance to the shape of a little head; a number of new vesicles also suddenly appear, rudimentary of different parts of the future body of the chick; those first formed, and most easily distinguishable, may afterwards be recognized as assuming the shape of the vertebral bones of the back.—2d day. The eyes begin to make their appearance about the thirtieth hour, and additional vessels, closely joined together, indicate the situation of the naval. The brain and spinal marrow, some rudiments of the wings and principal muscles, become observable. The formation of the heart is also evidently proceeding.—3d day. At the commencement of the third day the beating of the heart is perceptible, although no blood is visible; a few hours, however, elapse, and two vesicles, containing blood, make their appearance; one forming the left ventricle, the other the great artery. The auricle of the heart is next seen, and in the whole of these, pulsation is evident.—4th day. The wings now assume a more defined shape, and the increased size of the head renders the globules, containing the brain, the beak and the front and hind part of the head distinctly visible.—5th day. On the 5th day the liver makes its appearance, and both auricles, now plainly seen, approach nearer the heart than they were before. That beautiful phenomena, the circulation of the blood, is evident.—6th day. The lungs and stomach are distinguishable, and the full gush of blood from the heart distinctly apparent.—7th day. During this day, the intestines, veins, and upper mandible, become visible, and the brain begins to assume a constituent form.—8th day. The beak, for the first time, opens, and the formation of flesh commences upon the breast.—9th day. The deposition of matter, forming the ribs, takes place, and the gall-bladder is perceptible.—10th day. The matter forming the skull now becomes cartilaginous, and the protrusion of feathers evident.—12th day. The orbits of sight are now apparent, and the ribs are perfected.—13th day. The spleen gradually approaches to its proper position in the abdomen.—14th day. The lungs become inclosed within the breast.—15th, 16th and 17th days. During these days the infinity of phenomena in this wonderful piece of vital mechanism, elaborate it into a more perfect form, and it presents an appearance closely approaching a mature state. The yolk of the egg, however, from which it derives its nourishment, is still outside the body.—18th day. On the 18th day, the outward and audible sign of developed life is apparent, by the faint piping of the chick being, for the first time, heard.—19th, 20th, and 21st days. Continually increasing in size and strength, the remainder of the yolk gradually becomes inclosed within its body; then, with uncommon power for so small and frail a being, it liberates itself from its prison in a peculiar and curious manner, by repeated efforts made with its bill, seconded by muscular exertion with its limbs, and emerges into a new existence.

The position of the chicken in the shell is such as to occupy the least possible space. The head, which is large and heavy in proportion to the rest of the body, is placed in front of the belly with its beak under the right wing; the feet are gathered up like a bird trussed for the spit; yet in this singular manner, and apparent uncomfortable position, it is by no means cramped or confined, but performs all the necessary motions and efforts required for its liberation, with the most perfect ease, and that consummate skill which instinct renders almost infallible. The chicken, at the time it breaks the shell, is heavier than the whole egg was at first."

The superintendant of the oven politely exhibited a comparment in which the eggs were chipping. Some had chipped the day before, others that day, and some would not be chipped till the morrow; in a few cases we observed the beak of the chick boring its way through the shell, and getting itself emancipated. When the little creatures are ushered into the world, they are not immediately removed out of the oven, but are allowed to remain for a few hours until they become dry; they are then removed and put into the glass-case, on the table at the end of the room. This case is very shallow, and the glass cover can be easily pushed aside to permit the superintendent handling them if required. They are here for the first time fed, though not for twenty-four hours after being hatched; the material scattered among them is small bruised grits, or particles little larger than meal; these they eagerly pick up without any teaching, their instinctive desire for food being a sufficient monitor. After the brood has been kept in the glass-case, (which is partially open) for two or three days, and been thus gradually accustomed to the atmosphere, they are removed to one of the divisions in the railed enclosure on the floor. Here hundreds are seen running about, uttering peepy cries, picking up grits or otherwise amusing themselves, all being apparently in as lively and thriving a condition as if trotting about in a barn-yard. At six in the evening they are put to bed for the night in a coop; these coops are wooden boxes, lined with a flannel curtain in front, to seclude and keep the inmates as warm and comfortable as if under the wing of a mother. At six or seven in the morning they are again allowed to come forth into their court-yard, which being strewed with sand, and provided with food and water, affords them all the advantage of a run in an open ground.

I made some inquries respecting the failures in hatching, and deaths, and received the following information:—The eggs are usually purchased from Leadenhall market, and, consequently, not being altogether fresh, or otherwise suitable, one half them fail in hatching. Once hatched, they are safe, for not more than one dies out of fifty which are brought into existence. If good and suitable eggs could be procured at all seasons, the failures in hatching would be comparatively trifling. Bad eggs therefore, are the weak point in the establishment, and I should recommend the proprietor to complete his arrangements, by adding an egg-laying department to those which he has for hatching. This might be done by keeping a regular poultry-yard, either in connexion with the place or in the country. The apparatus for hatching is capable of producing forty thousand chickens in a year, and, making allowance for failures, the actual product cannot fall short of half of that number. When three weeks old, as I was informed, the chickens are taken to market, and sold for a shilling each. Thus, we would suppose, the Eccaleobion turns out at least a thousand pounds worth of chickens annually—no bad revenue, it will be said, after paying expenses, but not greater than the ingenious contriver and proprietor, Mr. William Bucknell deserves.

This thing, trifling as it may appear to some, is highly deserving of public attention. Attempts to hatch eggs in ovens are of old date, but have never succeeded on a permanent or large scale in this country. In Egypt the practice has been more successful; yet even there, with the advantages of a superior climate, one in five of the hatched birds dies, and many are deformed, doubtless from the unequal application of the heat. It has only been by the Eccaleobion, as far as I can learn, that the birds have been brought out with certainty, or been reared successfully after being hatched: every bird is perfect and will grow to its full size. The distinguished characteristic of this invention is exact regulation of temperature at different stages of advancement, for eggs, as is well known, develop heat naturally in the course of hatching, and consequently the artificial heat requires to be judiciously diminished as the natural heat increases. By employing steam or hot-water pipes, the temperature is not only capable of being exactly regulated, but is diffused generally and equably throughout the oven, and acts upon all sides of the egg alike. Hence, the eggs in the Eccaleobion require no handling or turning during the process—there is no fear of their being roasted on one side or cooled on the other. Provided all is fair and above board, as the proprietor of the Eccaleobion describes, or the superintendants inform the visitors, there can be no difficulty in multiplying egg-hatching and chicken-rearing establishments all over the country. Poultry is at present a dear article, on account of the very limited and imperfect manner of its production; but this need not be the case any longer. There is nothing to prevent every town in the kingdom having its chicken manufactory as well as any other branch of business. Wherever there are establishments with steam-engines having a redundancy of steam, it would be the easiest thing in the world to erect a fowl producing apparatus in connection with the works. And if this did not in some degree improve the resources of the country, and the condition of the people, I do not know what would.

To any one who keeps hens or can keep them, we recommend the following communication as worthy an attentive perusal. It contains much valuable matter in a few words. Many complain that their hens do not lay in the winter, and the cause is apparent on taking a proper view of the subject, and the evil is very easily remedied. The hens want lime to form the shell, gravel to assist in digesting their food, and they need in the winter, food similar to that which they choose when they run at large in the warm season, and have the privilege of making choice of their food.—*Editor Yankee Farmer.*

ON KEEPING HENS.

Mr. Editor—Will you have the goodness to insert the following in your paper for the benefit of those who are partial to eggs and poultry. Income of four hens from March 15th, 1839, to July 12th, being a little short of four months—number of eggs three hundred and one: a brood of ten chickens reared and weaned when 34 days old, and the mother of the chickens commenced laying on the 35th day. I would give you an account of the income of my fowls for one year, had I not met with the misfortune of losing one of them, and shortly after I sold another, which reduced my number to two. I have now added to the number, and intend to give you the income from six hens the ensuing year.

My mode of feeding my fowls is simply this. Having plenty of grain by them at all times, say barley, buckwheat, oats and corn—I keep lime, sand and bones pounded fine, and ashes, by them in winter, and green cabbages cut fine: they require some green vegetables when they cannot have access to grass. In regard to the expense of keeping my fowls, I do not know, but I should think it would not exceed $1,50 for the above time, as I let them have their liberty.

Yours, &c. T J.

Chelsea, Nov. 26, 1839.

From the Farmers' Magazine.

New Way of Preventing Smut in Wheat.

Sir—The subject of smut in wheat having often occupied the attention of scientific men, and also the growers of wheat in general, as to its cause and preventive, I therefore send you the result of seven crops on the land I now occupy. In the year of 1833, 1834 and 1835, my wheat was always infected more or less with smut, although brine and lime was used in the usual way. I resolved in the autumn of 1835, to use brine and lime on half my seed wheat, and blue vitriol on the other half. The consequence was, tha I had smut where the brined lime was used, and very little indeed where the vitriol was applied. I, therefore, determined to use vitriol in future; I have done so, and the result has been, that in my crop of 1838, I could not discover more than six smut ears, and in this present crop, I have not been able to see one, although I have made diligent search; my managing man has seen three smut ears, only, and this is near 90 statute acres of various sorts of wheat, viz: Whitington, Brown's chevalier, Taunton velvet hull, yellow Lammas and Talavera. I cannot boast of superio crops, for the country does not warrant it, but any respectable farmer that may be desirous of seeing my wheat now in field or in the barn, any time during the year, may do so.

Yours, respectfully,

GEORGE DYER.

Old Place Farm, East Hants, Aug. 3.

A great lie, says Crabbe, is like a big fish on dry land, it may fret, and fling, and make a frightful bother, but it can't bite you. You have only to let it lie still, and it will die quietly of itself.

An Irishman who had blistered his fingers by endeavoring to draw on a pair of boots, exclaimed, "By St. Patrick, I believe I shall never get them on until I wear them a day or two."

From the Farmer's Register.

Application of the Principles of the Rotation of Crops.

There is scarcely any condition of agriculture, in the least degree advanced, or improved in operation, which is not based on some rude system of rotation, or succession of crops in a certain order. It has long been known and almost universally acted upon, that, as to grain crops at least, the same kind could not be produced successively on the same land, without a rapid decline of product, from some other cause or causes besides the mere lessening of the fertility of the land. For when land so treated and so reduced in product was put under some other crop, the product of such other crop was greatly better. Therefore, except in the earliest and rudest cultivation of a new country, no where is there to be found cultivated the same grain crop for many years in succession, without the interposition of some other crop, of other grain or of grass. Cotton is the only tilled large crop in this country which has not been alternated with other cultivation, and which is tended for years together on the same land. This practice is recommended by the clean condition of the land required by that crop, and which its repeated culture secures. But it may well be doubted whether the diseases and enormous losses of product in this crop, are not to be ascribed to its being continued so long on the same land.

But though every farmer uses something of a rotation, still the most usual courses of crops are very imperfect and highly objectionable; and there is scarcely any scheme of rotation which does not offend greatly, in some of its features, against the correct principles or theory of rotation.

The fact of the certain and rapid decline of product of any one crop repeated year after year on the land, was universally conceded, and the practice generally abandoned, by practical cultivators, without their troubling themselves to investigate the causes. Theoretical and scientific agriculturists have entertained different views at different times, and each has had its reign. Formerly it was supposed, and generally admitted, that each plant drew from the soil some food peculiar to itself, and thus rapidly exhausted the soil of this its own peculiar nutriment, while there still remained unconsumed, and in abundance, the food to support plants of other kinds. But though this theory passed current long, without dispute, because it served to explain the effects produced, it was gradually weakened, and finally overthrown, by later and more correct views of the nature of the food of plants. It is but within the last few years that a new and opposite doctrine has been started, which is at least the most *in fashion* at present, if not the most generally received. This is founded on the discoveries of Macaire, De Candolle, and Towers, of the *excretions* of plants by their roots: and the inference thence drawn that the rejected excrement is fit to serve as food for other plants, but is useless, if not absolutely hurtful to the kind from which it was thrown off. And hence also would follow the necessity for a change of crops.

Without denying or advocating either of these doctrines I will yet add to whatever may be the main cause which calls for a frequent change of crops, *another cause*, of at least very considerable operation, and which has been already named in the first of these numbers. This is, that every plant is subject to be preyed on by its own peculiar tribes of insects, which are continued to be supplied by their proper food, and favored by the still continuing circumstances of the field, and therefore are increased continually in numbers, and in their destructive ravages, so long as the crop which fed them, and the circumstances which favored them, remain unchanged; and that these insects must be destroyed or greatly reduced in their numbers and powers of mischief, by a total change of the growth and of the treatment and condition of the field. Perhaps these depredators may be invisible, from their minuteness, and yet so numerous as to cause any extent of injury that is found to be suffered by unchanged tillage of any one crop, and which is avoided by convertible husbandry or a rotation of crops.

But luckily, though the causes of such evils may be uncertain, the effects and the remedies are not therefore unknown. And the observations of both scientific and practical agriculturists have served to establish what they have termed the *principles of the rotation of crops*, which furnish a body of rules by which to test every particular scheme, and show its advantages and defects. But though most of these principles and the rules founded on them, are universally received, still perhaps every writer and reasoner upon rotations differs in some important respect from all others; and my own views, and still more the rules and applications founded thereon, which have been and will be offered in these numbers, have no authority, either in previous precepts or examples of practice. The adoption of the above named and new reason for a rotation of crops, would alone require the introduction of new rules in determining a proper order of succession, and a considerable departure from the stated rules prescribed by any previous writer on this subject. But though the principles and rules laid down by every modern and well informed agriculturist may have differed in some respect from all others, and even if all were wrong as to the main *cause* of the necessity of changing crops, still all were right in the main, in their general precepts and rules of ordinary procedure.

But though many scientific writers have laid down the principles of proper successions of crops, and all modern agriculturists in writing, or in practice, have advocated particular rotations, still scarcely any two agree fully in their rules; and agreement in practice seems more the result of old custom and neighborhood example, than of thinking and reasoning. It is manifest that no particular course of crops can be prescribed as the best for an extensive agricultural region, nor for fields of different soil on the same farm, nor for the different conditions at different times, of even the same field. It is as much quackery to direct the same rotation for an extensive region, as it is to prescribe the same medicine for all diseases. When we hear of a particular rotation (no matter what) being generally pursued throughout a large district, it is pretty good evidence that the rule is pursued from custom, and not by reason. Some of our best farmers have no regular rotation, though always aiming to observe the sound principles of the succession of crops, by varying the succession, according to the changes of circumstances.

But if neither reasoning nor precept can point out always a right or perfect rotation, it is easy enough to learn from both what is wrong and injurious. And we can scarcely find any regular rotation in this country, which does not offend against some admitted principle and rule, and the most common have scarcely one redeeming quality, no matter by what test or principles the practice be tried.

The most important and indeed *indispensable* requisite of any good scheme of rotation, or course of crops, I take to be the following; and the observance of them may be termed the *three primary rules for rotations*. 1st. That the several crops which form the course, are among the most *profitable to the cultivator*, in the circumstances in which he is placed, of climate, soil, and market. 2nd. That the whole course of crops, taken through, is *profitable to the land*—serving to increase its productiveness, if poor—and at least retaining its productiveness, if already rich. 3rd. That each crop in the rotation serves to prepare for and aid the cultivation and production of the next, which is to follow it, instead of obstructing either or both.

The first two of these requisites, either expressly or by implication, may be considered as embraced in every theoretical scheme of rotation, and aimed (however imperfectly) to be preserved in every judicious farmer's practice. The third is almost disregarded by all, and is certainly not by any placed in the important position, or viewed in the light which I think it deserves.

If all these three requisites be secured, any rotation will be good; if any be neglected, or be but imperfectly secured, the rotation will certainly be a bad one.—The best devised rotation for the improvement of the land and its products, and perfecting the tillage, would be inadmissible, if any of the crops were of such kind as not to be either sold, consumed, or otherwise profitably used, by the farmer. Neither would the greatest annual sales justify another rotation, if it worked to impoverish the farm. And even if the *kind* of crops were to be the most profitable, and the improvement of fertility regularly advancing, what will it profit the proprietor, if the rotation operates to produce weeds and depredating insects in such numbers as greatly to increase his labors, and also to diminish their products?

Scientific agriculturists have laid down so many principles or rules, to be observed in planning rotations, that it is impossible in practice to observe all, or perhaps half of them. Thus the English writers insist, perhaps more strongly than on any other point, that green (or grass and roots, or leguminous) crops, and white (or grain) crops should regularly be alternated. Others, that tap-rooted plants should alternate with fibrous and shallow rooted. But all these are minor considerations compared to the foregoing; and each or all of them might come in conflict, in the circumstances of this country, with one or more of the more important and indispensable requisites.

A man has been placed in the Asylum for the insane, in Philadelphia, because he was caught picking a printer's pocket.

The busy man, say the Turks, is troubled with one devil; but the idle man is troubled with a thousand.

Benefits of Root Cultivation.

The culture of root crops for the rearing of swine and for winter feeding of cattle I believe to be a great object to most farmers. The mangel wurtzel, the sugar beet, the common beet, the carrot and perhaps the parsnip may be raised on ground that will produce a good crop of corn; the ruta baga may be raised on a lighter soil and with less manure than the other crops. In proportion to the quantity produced with the same labor, I am inclined to give the preference to the ruta baga. That crop may be raised with about as little labor as a crop of potatoes upon the same ground. If the season be fortunate, six and eight hundred and sometimes a thousand bushels to the acre are produced: a thousand bushels weighing twenty-five tons, dealt out to a stock of cattle, will be equal in value to at least ten tons of the best hay. It is a mistake to suppose that the ruta baga spoils either the meat or the milk of the creature fed upon it. This mistake originated in the fact familiar to many practical farmers, that the turning of fat cattle and cows into fresh feed, where turnips, cabbages, and onions have been raised and cleared out, leaving tops and leaves, will make them liable when slaughtered or milked, to leave the meat or the milk tainted with the taste and flavor of the articles upon which they have fed.

Milch cows fed daily on ruta baga once a day, will communicate no taste to the milk; and if there be any doubt about fat cattle, the leaving off the ruta baga one week and substituting corn or other feed, will leave their meat in as good flavor and quality as if they had fed exclusively on corn. I prefer late sowing of ruta baga, say as late as the 10th of June, to an earlier day: this root grows best in cool weather, and by late sowing it much better escapes the turnip fly and destroying grubs, and has the advantage of a vigorous growth late in the fall until severe frosts shall render it a matter of prudence to gather them. Beets of the various kinds, and carrots, to such as do not admire ruta baga, may be made well to supply their place. Fed with either, winter milked cows may be made to give double the quantity of that most necessary and most grateful article in the consumption of every family, that they will give when fed simply on the best English hay. With the general cultivation of roots, my present conviction is that the quantity of beef and pork and butter and cheese produced in New England, may be increased one-half, and might be very easily doubled.—*Gov. Hill's Address at Keene.*

HEALTH--REGULATION OF DIET.

Many shut themselves up entirely in unpleasant weather, during the long winter, or whenever they find a pressure of business within or unpleasant weather without; and yet they eat just as voraciously as if they took exercise every day. To say that no attention is to be paid to diet, is madness. You must pay attention to it sooner or later. If you are faithful to take regular vigorous exercise every day in open air, then you may eat, and pay less attention to quantity and quality. But if you take but little exercise, you may be sure that you are to be a severe sufferer if you do not take food in the same proportion. I do not ask you to diet, that is, to be as difficult, and as changeable, and as whimsical as possible, as if the great point were to see how much you could torment yourself and others; but I do ask you to beware as to the quantity of food which you hurry into the stomach three times each day, without giving it any rest. It is the quantity rather than the kinds of food, which destroys sedentary persons; though it is true that the more simple the food the better. If you are unusually hurried this week, if it storms to-day, so that in these periods, you cannot go out and take exercise, let your diet be very sparing, though the temptation to do otherwise be very strong. When by any means you have been injured by your food, have overstepped the proper limits as to eating, I have found in such cases that the most perfect way to recover, is to abstain entirely from food for three or six meals. By this time, the stomach will be free, and the system restored. I took the hint from seeing an idiot who sometimes had turns of being unwell; at such times he abstained entirely from food for three days, in which time nature recovered herself, and he was well. This will frequently, and perhaps generally, answer instead of medicine, and it is every way more pleasant. The most distinguished physicians have ever recommended this course. It is a part of the Mahomedan and Pagan system of religion, that the body should be recruited by frequent fastings. "Let a bull-dog be fed in his infancy upon pap, Naples buiscuit and boiled chicken; let them be wrapped in flannel at night, sleep on a feather bed, and ride out in a coach for an airing—and if his posterity do not become short lived, and valetudinarian, it will be a wonder.—*Todd's Student's Manual.*

From the Yankee Farmer.

Cost of raising Sugar Beets and other Roots.

In examining an estimate of the expenses of making beet sugar in this country, many farmers will consider that the expenses of raising the roots is reckoned too low; this is owing to the little attention that has been paid to root crops; and to farmers, in general, not being made acquainted with the best and most economical method of culture, and not having machines and implements to enable them to manage the growing of root crops to advantage.

These unfavorable opinions will in a measure continue, till root culture is more in practice, for, though cases are stated of crops raised at a small expense, they will be regarded as extraordinary cases, and estimates made on paper, in which no error can be pointed out, will be looked upon as something uncertain; yet these favorable accounts will lead the enterprising and intelligent to try whether these things are so, and although their expectations may not always be realized, yet they will find a great advantage in attending to root culture, and be led to inquire into the most frugal method of pursuing it. Farmers who dig up a small patch and sow it in beets, and do not weed it till there are five hundred weeds to one plant, may find that the cost of raising a bushel of beets is one dollar, when, with prudent management in raising on a large scale, ten or twelve bushels could be raised with this expense.

In raising beets and some other crops in a garden, we have managed to do the weeding before sowing, and find that it is a great saving of labor; that is, pursue that manner of culture that will destroy the weeds before the seed is sown; and the same plan may be followed in field culture, and even to a greater advantage, as most of the labor can be done by animal labor, which is much cheaper than manual labor in this country, and this, as has been observed in the articles lately published on the subject, will enable us to raise beets as cheap as they are raised in France.

Our method has been to put on the manure and stir up the ground in the fall or early in the spring—the former is preferable, as the frost will loosen the soil and make it mellow, and the weeds will start in the spring before the soil is dry enough to work: when the weeds were well started, we worked the ground over again. About the 20th of May the ground was well worked over, and the seed sown, after being soaked, so that it would come up in a short time; the plants were up and large enough to hoe when scarcely any weeds appeared, the hoeing was done in a short time, the soil being very light and mellow, and there was but very little trouble on account of weeds, through the season, they having been mostly destroyed before sowing. If this plan should be pursued in field culture, it would save nearly one half of the expense. One hour's work with a horse and cultivator, in stirring the earth and destroying weeds before sowing, would save several days in hoeing.

The following method of culture for a field crop, would be very economical as to weeding, which seems to be the most expensive part of cultivation. A piece of land, a deep, mellow soil, that has been well manured and planted one year in corn or potatoes, would be in good condition for a beet crop. If it has been ploughed more than one year, there would be danger from the grub worm, which we believe is the principal injury from insects to which the sugar beet is liable.

A piece should be selected that can be ploughed deep, and the stones, if any, removed. If there has not been sufficient manure applied to the previous crop, apply the manure and plough the ground very deep in the fall, if it cannot be done at this season, then as early as possible in the spring. When the weeds have started, go over it with a cultivator, and in a few weeks go over it again in the same way; this will loosen and pulverize the soil and destroy the weeds.—

From the 20th of May to the 1st of June, let the earth be thoroughly stirred with a cultivator, or if the soil be not very loose it may be well to plough it again and then go over it with a light harrow to make the surface level and smooth, and the soil fine: be ready to sow as soon as the ground is prepared, while the surface is moist, and that the plants may get the start of the weeds. Pour water as hot as can be borne by the hand on the seed, and let it soak a day and a half or two days, then it will vegetate and be up, and the plants will be large enough to hoe before the few weeds that are liable to grow, get up so as to be much trouble.

Sow the seed with a machine and the expense will be light. Let the rows be from two to two and a half feet apart, then a light cultivator may be used between the rows; in thinning the plants, let them stand about one foot apart. If any places are vacant from the seed not growing or the grub worms eating them, the deficiency may be supplied by transplanting; though transplanted beets do not form so handsome a root, yet they yield about as much as the other. The expense for weeding and loosening the soil will not be great.—In harvesting, if the beets cannot be pulled easily, a furrow may be ploughed near each row with a horse plough, then they may be pulled with little labor. By this, or some better way, if it can be devised, beets may be raised at a small expense, and as lands and animal labor are cheaper here than in France, and as much labor can be done here by animals which is performed there by the hands, we think our advantages are equal to those of France in the cheapness of manual labor. But supposing our advantages in raising the beets are not equal as to a cheap production, we have reckoned the expense higher in the calculations we have published, so as to conform to a fair estimate on all expenses. Instead of $3,20 per ton, as in France, we have reckoned at $5 per ton. No calculation on the expense of raising beets or other crops, can be made exactly suited to all parts of the country, as the prices of labor and land are different. Near cities and large towns, and near the seaboard, owing to good advantages for markets and communication, lands are higher, and the rent of them more, of course, than in the interior; in such cases labor too is usually somewhat higher.

Estimated Expense of an Acre of Sugar Beets.

Use of an acre of land well prepared for beets and manured, or managed in the previous crop—	$12 00
Ploughing,	4 00
Cultivator-*ing*, horse, cultivator and hand two hours,	50
Twice more before sowing,	1 00
Harrowing,	50
Seed, $2, 75, sowing with a machine, 75,	3 00
First hoeing,	4 00
Second hoeing, thinning, and transplanting to supply deficiencies,	4 00
Hoeing again and loosening the ground with machines,	2 00
Harvesting,	9 00
	$40 00

Make the rows 2 feet 4 inches apart, and then a cultivator can be used in hoeing. If the beets stand one foot apart in the rows, and weigh 1 1-4 lbs. each, the yield will be 20 tons. In rich ground at that distance, a great number will weigh 4 or 5 lbs. each; twenty tons is a good crop, but not extremely large, for in some cases 25 or 30 tons to the acre have been raised in this country. At the above expense of $40 to the acre with a yield of 20 tons, the cost would be $2 per ton. We make this estimate to show how cheap beets may be raised under favorable circumstances, such as good land at a fair price, convenient machinery and implements, and the most prudent management in the culture, with labor at a moderate price, and a favorable season. We have no doubt that in some parts of New England beets could be produced in great abundance at the above price; but we must not always expect a combination of favorable circumstances.

Suppose we reckon the produce only two thirds as much as above, say 13 2-3 tons, and the cost 32-1-2 per cent more, which will be $53 33 cents; then the cost of the beets will be only $4 per ton, one-fifth less than Mr. Bosson reckoned in his calculation on the cost of beet sugar. If we reckon 50 pounds to the bushel, 13 1-2 tons per acre would be only 533 bushels, which would be no more than a middling crop; not half as much as has been raised in a number of cases that have been named.

From the New England Farmer.

Agricultural Improvements in Europe.

Agriculture in Europe is now receiving an attention which it has never received in any preceding time. The long continuance of peace among the great nations, who for so many years, we had almost said centuries, had time to think of little else than conquest and military glory, has been in the highest measure favorable to the cultivation of the common and practical arts of life, and of agriculture in an especial manner, as the great art involving and demanding the aid of all others. Implements of husbandry have been substituted for weapons of war; and fields that have been watered by the blood and whitened with the bones of slaughtered thousands, are now seen glistening and waving with golden harvests.

In England, great as the improvements were before that time, yet within the last fifteen years, it is confidently stated, that by an improved cultivation, the agricultural products have increased at least twenty-five per cent. in many parts of that country: that is to say, the amount of crop on the same extent of land is greatly increased, and the expenses of cultivation either not increased, or diminished; or, to state in a form perhaps more intelligible, the profits of agriculture are advanced one-quarter by improved cultivation.

The same results are appearing in France. In England the introduction of the turnip husbandry produced the most extraordinary results; and of a permanent character. It enabled the farmers to keep much more stock than could be kept on dry hay and straw, and to keep a superior stock and in much better condition. It enabled them to enrich their lands very greatly by feeding off the turnips on the ground on which they were grown, and served to increase their manure heaps at the barn, when the turnips were fed to the cattle in the yard. The careful cultivation which good crops of this root demanded, made a fine preparation for wheat or oats or barley; and thus every thing went forward by a joint and reciprocal operation. In many of the counties of England the turnip cultivation has been the foundation of their improved husbandry; has changed the whole aspect of things; more than trebled or quadrupled in many cases the value of estates, as appears by their increased rental, and by the grain and wool, and beef and mutton which it has enabled the farmers to produce, it has proved the source of immense wealth.

What the turnip husbandry has done for England the sugar beet cultivation is now doing for France; with this superior advantage, that the sugar obtained must be considered as, to a degree, an extra profit. The leaves and the pummice afford a large amount of feed for stock; the cultivation which the plant requires, prepares in a capital manner, the ground for other crops; and the increase of live stock on the farm where plenty of feed is produced in order to keep them, carries every thing else forward in a rapid ratio. The sugar obtained from the root affords a most ample profit, were there nothing else obtained from the cultivation.

The agricultural publications now going on in France, of which we have received several of a most valuable character, indicate an extraordinary attention to this great subject, and a high degree of improvement.

In reference to the manufacture of sugar from beet, we learn that so far as cheapness of operation and amount obtained per centage, the business was never more prosperous. The improvements which have taken place within a few years, are very great. The beet is now operated upon by rasping or grating as soon as taken from the field; and this often early in September. It is then leeched, if the expression be proper, by cold water. This carries down all the saccharine matter, leaving behind all the mucillage, which has given to the sugar an unpleasant taste; and to get rid of which has long been a great desideratum. The saccharine matter is then subjected to a process of purification, crystallization and refinement, which enables them to obtain at least eight per cent. of sugar, and at so moderate a rate, that they can afford to pay the government excise of seven cents per pound, and leave a handsome profit to the farmer and manufacturer.—From all that can be learnt, there is little doubt that the improvements are such that it can soon be made an article of profitable household manufacture. This is a great desideratum, and a point which we confidently believed at one time had been gained by our respected friend at Stoneham; but in the absence of all advices from him, we are gratified with this intelligence from abroad, which we have received from an authentic source, and have only to congratulate ourselves that in spite of all delays and hindrances, the world will go round. This intelligence is highly gratifying. Europe now is only half a month's journey, and a quickened enterprise and public spirit diffuse intelligence almost with the rapidity of light. H. C.

Beets in old Dutchess.—A farmer of Dutchess Co. N. Y., has sent the editor of the Poughkeepsie Telegraph, samples of sugar beets and mangel wurtzel, with a memorandum stating that his crop of beets then harvesting, would amount to from 1000 to 1200 bushels, from less than an acre of land, and that the average cost of raising them will not exceed 6 cents per bushel. The six largest of the sugar beets weighed 67 lbs., the heaviest one 13 lbs.—*American Farmer.*

An Intelligible Recipe.—A lady at the Springs last summer, being desirous of obtaining the recipe for making a certain pudding, to be met nowhere but at Congress Hall, applied to the superintendent for the same. It was immediately furnished in the following clear and conspicuous terms:—"Take a few eggs, a quantity of milk, a thingfull of currants, a thingfull of meal, a thingfull of wine, three thingfulls of flour, and sweeten to your taste."

MISCELLANEOUS NOTICES.

To Manage a Rearing Horse.—In preference to the dangerous experiment of pulling a rearing horse backward, I recommend the adoption of the following method:—Whenever you perceive the horse's inclination to rear, separate your reins and prepare for him; the instant he is about to rise slacken one hand and bend or twist his head with the other, keeping your hands low. This bending compels him to move a hind leg, and of necessity brings his fore feet down. Instantly twist him completely round two or three times, which will confuse him very much, and completely throw him off his guard. The moment you have finished twisting him round, place his head in the direction you wish him to proceed, apply the spur sharply, and he will not fail to go forward: if the situation be convenient, press him into a gallop, and apply the spur, and whip two or three times (but not more) severely. The horse will, perhaps, not be quite satisfied with the first defeat, but may feel disposed to try again for the mastery. Should this be the case, you have only to twist him, &c. as before, and you will find that in the second struggle he will be more easily subdued than on the first occasion—in fact, you will perceive him quail under the operation. It rarely happens that a rearing horse, after having been treated in the way described, will resort to his tricks a third time. But on going into other hands, and having another rider, he will be very likely to have recourse to rearing.—*The Sportsman.*

Whimsical Calculation.—What a noisy creature would man be, were his voice, in proportion to his weight, as powerful as that of the grasshopper, which may be heard at the distance of one-sixteenth of a mile. The kolibri weighs about half an ounce, so that a man of ordinary size weighs about as much as 4000 kolibris. One kolibri must weigh at least as much as four grasshoppers. Assuming, then, that a man weighs as much as 16,000 grasshoppers, and that the voice of one of these may be heard at the distance of one-sixteenth of a mile, that of a man, were it in proportion to his weight, would be audible at the distance of 1000 miles; and when he sneezed he would run the risk of bringing the house about his ears, like the walls of Jericho at the sound of the trumpets. Assuming, farther, that a flea weighs a grain, which is something more than its real weight, and that it is able to clear one inch and a half at a spring, a man of 150 pounds weight would, by the same rule, be able to make a spring over a space of 12,800 miles, and consequently leap with ease from New York to Cochin China. Aristophanes represents Socrates and his pupils occupied in a similar computation. They are exhibited calculating the weight of a flea's leg in proportion to that of its body. The ironical calculation of Aristophanes, however, falls far short of that of the *New York Sun.*

Corn Puzzle.—The following "puzzle for the curious" appears in the *Worcester Journal.*—If a person were to take a single wheat corn in his pocket to market on New Year's day, and double the same every week for 52 weeks, or till New Year's day again, it would amount to more loads of wheat, 20 bags each, 3 bushels to a bag, than it would take bank-notes to build a stack 25 times higher than the top of St. Paul's, London (supposing a stack could be built), reckoning the building 144 yards, and allowing 100 notes to an inch. 2d, After this was deducted there would be more loads left, 20 bags each, than any ten millers ever bought bags of wheat in their lives, allowing each to buy weekly 2000 bags for eighty years. 3d, After this deduction there would be more loads, 20 bags each, remaining than it would take bank notes to cover 100 square acres of ground, allowing each note to measure 6 inches by 4. 4th, After this deduction there would be more loads left than the wheel of a coach would turn round times in a distance of 1200 miles, supposing the wheel to measure 17 feet in circumference. 5th, This would leave more loads than it would take barley corns to reach from Worcester to Alcester, a distance of 17 miles, allowing three barley corns to an inch. 6th, This would leave more loads than it would take tons of coal to supply the city of Worcester for 30 years, allowing 83 barge or boat loading to be brought every week for 30 years, and allowing each barge or boat to carry 60 tons, which would load 137,280 boats or barges, 60 tons each.—7th, After these deductions there would be more loads left, 20 bags each, than it would take pounds to build sixteen county courts, allowing each to cost £50,000. 8th, There would be more loads remaining then than it would take bags, three bushels each, to load 3000 barges, allowing each barge to carry 500 bags. 9th, After all these deductions there would be wheat enough left to find 2500 persons in bread for 66 years, allowing each person to eat annually nine bags. All the quantity of corn together would load 1,125,899 ships, 1000 quarters each. The amount of all the number of corns is 4,503,599,627,370,495. Reckoning 500,000 corns to fill a bushel, is 9,007,199,254 bushels.—Number of bags, 3 bushels each, 3,002,399,751.—Number of loads, 20 bags each, 150,119,987.

WINTER EVENINGS.

Long cheerful winter evenings. These constitute one redeeming trait in our cold varying climate. Our winter evenings are sufficient to reconcile us to our locality on *terra firma*, so valuable are they as the season for fireside amusements and intellectual improvements. What a pity it is they are generally wasted. We have known many an indolent mechanic who would tumble into bed by eight o'clock, while his pains-taking spouse worked till eleven or twelve; and many a farmer's wife will work till midnight, while her husband dozes in the chimney corner. This dozing is a bad habit. If you need sleep, go to bed and have it, and then be wide awake when you get up.—Don't allow yourself to snore in the corner—it is ill-bred and indolent. A man who will sleep like an animal while his wife is hard at work, don't deserve to have a wife. Take a book or newspaper, and read to her these long winter evenings. It will be a mutual benefit. It will dissipate much of the gloom and inquietude too often engendered by care and hard labor, it will make you more happy, more useful, and more respected. Our farmers are too apt to mis-spend these long winter evenings in idle grumblings at "*hard times,*" high taxes, and modern degeneracy. Finding fault wont mend the times. They must read, improve themselves, and educate their children, that the next generation may be wiser than their fathers. Our farmers are but half acquainted with the rich resources of their soil. Were they familiar with the most improved system of husbandry, they might readily become so by devoting these long winter evenings to the reading of books which treat upon this subject, they would have much less cause to complain of hard times. Some of the greatest and best men of our country were sound practical farmers. But they were not ignorant farmers. They were men whom great energies called from the seclusions of private life to take part in great national affairs, and when the state of the country no longer required the exercise of their talents, they returned again to the healthful and honorable labors of the farm. When our farmers are better informed, and not till then, may they hope to take that rank, and exert that influence in society, to which the respectability and importance of their occupation so justly entitled them. We again say, let our farmers, our mechanics, and our apprentices *read*—spend their winter evenings in acquiring useful knowledge, as the best remedy for hard times, and the best preservative from folly and dissipation.—*Selected.*

GENUINE ROHAN POTATOES.

THESE celebrated potatoes are for sale at the Rochester Seed-Store, at the following low prices:—$2 per bushel—$7 per barrel, (2 1/2 bushels.)

As the price will undoubtedly advance in the spring, those who wish to obtain them will do well to order them soon.—They will be safely kept till spring, if desired, and sent according to order. M. B. BATEHAM.

January, 1, 1840.

ROCHESTER SEED STORE, 1840.

THE liberal support which this establishment has received for several years past, affords flattering evidence that the proprietor possesses the confidence of the public, and that his efforts to accommodate the community are not unappreciated. While he expresses his acknowledgements for the past, he is happy to inform his friends, that he is now better than ever prepared to serve them; and is confident that future transactions, in his line, will be attended with increased pleasure to himself an satisfaction to his customers. Some difficulty has been heretofore experienced in obtaining new seeds, of some kinds, which it was desirable to import. And, in order to remedy the evil, the proprietor went over to Europe himself, and procured a supply for this season; and made such arrangements for the future, as will prevent all difficulty in obtaining supplies from that country.

The present stock of imported seeds is very extensive; they were selected with great care among the best growers of England and Scotland. Among them are many improved varieties, which will be great acquisitions to our gardens and fields. Some account of them will be published hereafter.

The stock of American seeds is also very large. They were raised the past season, in the most careful manner.

With his present advantages, and experience in the business, the proprietor flatters himself that he will be able to guard against every source of complaint, and furnish an abundant supply of superior seeds at very reasonable prices. Any person who had seeds from him which proved bad, last year, are requested to mention the circumstances to him, that reparation may be made.

New Catalogues will be published soon, and sent to all applicants, gratis. M. B. BATEHAM.

Rochester, January 1, 1839.

PRINTED BY MARSHALL & WELLES,
CORNER OF BUFFALO AND EXCHANGE-STS., ROCHESTER.

NO ADVERTISEMENTS will we inserted in this paper, except such as relate to matters connected with Agriculture and Horticulture; and these will not be allowed more than 2 or 3 insertions.

MORUS MULTICAULIS FOR SALE.

THE Subscriber offers to those who would engage in the silk business, in Western New York, good sized and healthy trees, of last season's growth, and measuring from *three* to *five* feet in height, and untrimmed, on as reasonable terms as any other person. All letters in relation thereto, *post paid*, will meet with prompt attention.

E. F. MARSHALL,
Corner of Buffalo & Exchange-sts.

Rochester, 1 *mo* 1, 1840.

TO NURSERYMEN AND OTHERS.

THE following seeds were procured in Europe, especially for Nurserymen. The supply is not large, and those who wish any of them should order soon:

European Silver Fir, Norway Spruce, Larch,
English and Scotch Lamburnum, Broom, Furze,
Pyracantha Berries, Cypress, Horse Chestnuts.

Also, for sale, 20 Bushels of fine Peach Stones.

A correspondent wishes to dispose of a few hundred young thrifty Mountain Ash Trees. M. B. BATEHAM.

January 1, 1840.

AGENTS
FOR THE ROCHESTER SEED-STORE AND NEW GENESEE FARMER.

THE following persons will, in a few weeks, receive full assortments of seeds from the Rochester Seed-Store.—They will also receive subscriptions for the Farmer.

Buffalo,	W. & G. Bryant.
Lockport,	S. H. Marks & Co.
Albion,	Ruthbun & Clark.
Brockport,	George Allen.
Scottsville,	Andrus & Garbutt.
Le Roy,	Tompkins & Morgan.
Batavia,	J. V. D. Verplanck.
Attica,	R. & N. Wells.
Perry,	L. B. Parsons & Son.
Mount Morris,	R. Sleeper.
Geneseo,	J. F. & G. W. Wyman.
Canandaigua,	J. B. Hayes.
Geneva,	J. N. Bogert.
Waterloo,	Abram Duel.
Auburn,	T. M. Hunt.
Palmyra,	Hoyt & May.
Newark,	Doane & Co.
Syracuse,	T. B. Fitch & Co.
Utica,	J. C. Warner.
Oswego,	M. B. Edson.

☞ In answer to the numerous applications which are made for seeds to sell on commission, I would here state, that I do not furnish seeds in that way except to regular agencies; and I do not wish to increase the number of them at present, especially at far distant places, or *small* villages.

M. B. BATEHAM.

Rochester Seed-Store, Jan. 1, 1840.

ROCHESTER PRICES CURRENT.
CORRECTED FOR
THE NEW GENESEE FARMER, JAN. 1, 1840.

WHEAT,	per bushel,	$	75 *a* $ 78
CORN,	"		38 44
OATS,	"		25 .....
BARLEY,	"		44 50
PEAS, Common,	"		50 75
BEANS, White,	"		75 .....
POTATOES,	"		19 25
APPLES, Desert,	"		50 63
" Cooking,	"		38 50
" Dried,	"		75 1,00
CIDER,	barrel,		1,50 1,75
FLOUR, Superfine,	"		4,50 .....
" Fine,	"		4,00 .....
PORK, Mess,	"		12,00 12,50
" Prime,	"		8,50 9,00
" Hog,	100 lbs.		4,00 4,50
BEEF,	"		4,00 4,50
MUTTON, Carcase,	pound,		3 4
POULTRY,	"		6 8
BUTTER, Fresh,	"		16 18
" Firkin,	"		14 16
CHEESE,	"		6 8
LARD,	"		7 8
TALLOW,	"		10 .....
HIDES,	"		5 .....
SHEEP SKINS,	each,		50 63
WOOL,	pound,		38 50
PEARL ASHES,	100 lbs.		5,00 .....
POT,	"		4,50 5,00
HAY,	ton,		7,00 9,00
GRASS SEED,	bushel,		75 1,00
CLOVER,	"		6,00 7,00
FLAX,	"		75 1,00

Remarks.—Owing to the extreme scarcity of money, but little is at present done in the purchase or sale of produce; and some of the above prices are merely nominal, there being nothing done in the articles.

We live in hopes of seeing better times, (at all events, we have no fears of seeing worse,) and would advise farmers to bring nothing to market at present, with the expectation of obtaining money, with the exception of such things as are particularly adapted to the season, and constitute the necessaries of life. We hope to give better encouragement in our next.